DIGITAL TRANSISTOR

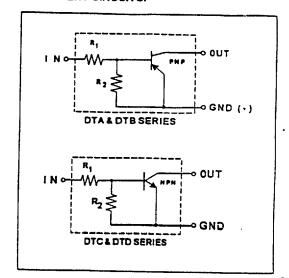
APPLICATION:

· Inverter, Driver & Interface Circuits

FEATURES:

- Replaces up to three parts (1 transistor & 2 resistors) with one part
- Available in a variety of surface mount or leaded (thru-hole) packages
- · High packing density requires less board space
- Cost savings due to fewer components to purchase & stock & handle
- Improved reliability due to reduced number of components
- · Available in PNP & NPN polarities
- Available in 100 mA & 500 mA devices
- Decreased parasitic effects
- Double diffused silicon, Epitaxial Planar Transistor with thin film internal bias resistors

EQUIVALENT CIRCUITS:



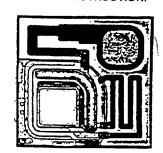
MAXIMUM RATINGS:

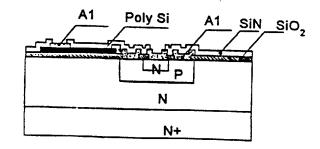
PARAMETER	PN	P	N	PN	
	DTA	DTB	DTC	DTD	UNITS
Power Supply Voltage (V _{cc})	50	50	50	50	Volts
Collector Current (I _c)	100	500	100	500	mA
Junction Temperature (Tj)	÷125	+125	+125	+125	*C
Storage Temperature (Tstg)	-55 to +125	-55 to +125	-55 to +125	-55 to +125	• • • • • • • • • • • • • • • • • • • •
Power Dissipation (Pd)	Rated by	Package See		1 20 10 1125	mW

MAXIMUM POWER DISSIPATION BY PACKAGE: Pd (mW)

	SUR	FACE MO	UNT DEV	ICES	THRU	-HOLE (L	.EADED) DI	EVICES	······································
Test Condition	SST (SOT-23)	SMT (SC-59)	UMT	ЕМЗ	SPT (TO-92S)	ATR	ATV	FTR	FTL
Free Air/PCB Ceramic Substrate	200 350	200 350	200 350	150 250	300	300	300	300	300

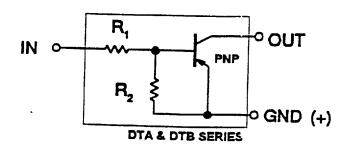
DIGITAL TRANSISTOR CONSTRUCTION:

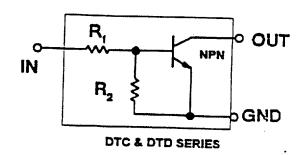




ROHM CORPORATION, Rohm Electronics Division, 3034 Owen Dr., Antioch, TN 37013 (615)641-2020 FAX (615)641-2022

Digital Transistor Summary Table





	Resistor Velues	PNP	PNP	NPN	NPN
R,	R,	2N3908	PN2907A/2N4403	I _c (Mex) = 100 mA 2N3904	l _c (Mex) = 500 mA PN2222A/2N4401
1/K 1/K 1/K	1K NONE	DTA 113T	DTB 113E	-	DTD 113E
	10K	DTA 113Z	DTB 113Z	DTC 113Z	DTD 113Z
10K 0 10K 10K 10K	10K 10K NONE 4.7K 47K	DTA 114E DTA 114G DTA 114T DTA 114W DTA 114Y/DTA 214Y	DTB 114E DTB 114T 	DTC 114E DTC 114G DTC 114T/DTC 314T * DTC 114W DTC 114Y	DTD 114E DTD 114G DTD 114T
100K 0 100K 100K	100K 100K NONE 10K	DTA 115E DTA 115G DTA 115T DTA 115U	- - -	DTC 115E DTC 115G DTC 115T DTC 115U	-
.22K	4.7K	•	DTB 122J	-	DTD 122J
2.2K 2.2K 2.2K 2.2K	2.2K NONE 47K 10K	DTA 123E 	DTB 123E DTB 123T - DTB 123Y	DTC 123E DTC 323T * DTC 123J DTC 123Y	DTD 123E DTD 123T DTD 123Y
2.7K	1K	DTA 1D3R		DTC 1D3R	3.0 (23)
22K 0 22K 22K	22K 22K NONE 47K	DTA 124E DTA 124G DTA 124T DTA 124X		DTC 124E DTC 124G DTC 124T DTC 124X	-
220K	NONE	DTA 125T	-	DTC 125T	-
3.3K	10K	•	DTB 133H	•	DTD 133H
4.7K 4.7K 4.7K 4.7K 4.7K	4.7K NONE 10K 22K 47K	DTA 143E DTA 143T DTA 143X DTA 143Y DTA 143Z	DTB 143E DTB 143T -	DTC 143E DTC 143T/DTC 343T • DTC 143X DTC 143Y	DTD 143E DTD 143T
47K 0 47K 47K 47K	47K 47K NONE 10K 22K	DTA 144E DTA 144G DTA 144T DTA 144V DTA 144W	- - - -	DTC 143Z DTC 144E DTC 144G DTC 144T DTC 144V DTC 144W	-
6.8K 6.8K	6.8K NONE	•	DTB 163T	DTC 363E * DTC 363T *	DTD 163T

* I_c = 600 mA

NOTE: See "How to Order" for complete part number

ROHM CORPORATION, Rohm Electronics Division, 3034 Owen Dr., Antioch, TN 37013 (615)641-2020 EAX (615)641 2020

DIGITAL TRANSISTOR: PNP

ELECTRICAL CHARACTERISTICS: 100 mA Series

	Vin(o	T)		VIn(o	n)		Vo	(on)			lb		lc(OF	ŋ		Voe(8	AT)		Cob	@ F=1	MHz		CUT-O	FF FR	ΕQ
PART	Max	Voe	5	Min	Voe	kc	TYP	Max	lc	Ж	Max	Vin	Mex	You	Vin	Max	lc	Ð	TYP	Mex	Vcb	Je	п	Voe	ic
NUMBER	(0)	(2)	(mA)	(4)	8	(mA)	(7)	8	(mA)	(mA)	(mA)	(7)	(uA)	8	M	(4)	(mA)	(mA)	(pF)	(pF)	(6)	(mA)	(MHz)	8	(mA)
DTA113Z	0.3	5	0,1	3	0.3	20	0.1	0.3	10	0.5	7.2	5	10	30	Q	0.3	5	0.25	3	6	10	0	250	10	5
DTA114E	0.5	5	0.1	3	0.3	10	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA114W	0.8	5	0.1	3	0.3	2	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA114Y	0.3	5	0.1	1.4	0.3	1	0.1	0.3		0.25	0.88	5	10	30	0	as	5	0.25	3	6	10	0	250	10	5
DTA115E	0.5	5	0.1	3	0.3	1	0.1	0.3	5	0.25	0.15	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA115U	3.3	5	0.1	1.5	0.3	1	0.1	0.3	7	0.2	0.1	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA123E	0.5	5	0.1	3	0.3	20	0.1	0.3	10	0.5	3.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA123J	0.5	5	0.1	1.1	0.3	5	0.1	0.3	5	0.25	3.6	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA123Y	0.3	5	0.1	3	0.3	20	0,1	0.3	10	0.5	3.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA124E	0.5	5	0.1	3	0.2	5	0.1	0.3	10	0.5	0.36	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA124X	G.4	5	0.1	2.5	0.3	2	0.1	0.3	10	0.5	0.36	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA143E	0.5	5	0.1	3	0.3	20	0.1	0.3	10	0.5	1.8	· 5	10	· 30	0	0.3	5	0.25	3	6	· 10	0	250	10	5
DTA143X	0.3	5	0.1	2.5	0.3	20	0.1	0.3	10	0.5	1.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA143Y	ი.3	5	0.1	3	0.3	10	0.1	0.3	10	0.5	1.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA143Z	(5	5	0.1	1.3	0.3	5	0.1	0.3	5	0.25	1.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA144E	(.5	5	0.1	3	0.3	2	0.1	0.3	10	0.5	0.18	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA144V	۰,٥	5	0.1	6	0.3	2	0.1	0.3	10	0.5	0.16	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA144W	C.B	5	0.1	4	0.3	2	0.1	0.3	10	0.5	0.16	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA214Y	C.3	5	0.1	1.4	0.3	1	0.1	0.3	50	2.5	0.88	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA1D3R	1.5	5	0.1	4	0.3	5	0.1	0.3	10	1	3.7	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5

	Vin(of	T)		Vin(o	n)		Vo	(on)			њ		lc(OF	F)		Voe(S	AT)		Cob	@ F=1	MHz		CUT-O	FF FR	EQ
PART	Max	Vce	k	Min	Vœ	kc	TYP	Max	lc	lb	Max	Vin	Max	Voc	Vin	Max	lc	В	TYP	Max	Vcb	le	π	Vce	ic
NUMBER	(4)	(V)	(mA)	8	(0)	(uA)	(4)	(5)	(mA)	(mA)	(mA)	100	(uA)	8	(4)	8	(mA)	(mA)	(pF)	(pF)	8	(mA)	(MHz)		(mA)
DTA143T	0.3	5	0.1	3	0.3	20	0.1	0.3	10	0.5	7.2	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTA114T	0.5	5	0.1	3	0.3	10	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	10	1	3	6	10	0	250	10	5
DTA124T	0.8	5	0.1	3	0.3	2	0.1	0.3	5	0.25	1.8	5	10	30	0	0.3	5	0.5	3	6	10	0	250	10	5
DTA144T	0.3	5	0.1	1.4	0.3	1	0.1	0.3	5	0.25	0.88	5	10	30	0	0.3	5	0.5	3	6	10	0	250	10	5
DTA115T	0.5	5	0.1	3	0.3	1	0.1	0.3	5	0.25	0.15	5	10	30	0	0.3	1	0.1	3	6	10	0	250	10	5
DTA125T	0.8	5	0.1	3	0.3	1	0.1	0.3	5	0.25	0.33	5	10	30	0	0.3	0.5	0.05	3	6	10	0	250	10	
DTA113T	0.5	5	0.1	3	0.3	20	0.1	0.3	10	0.5	3.8	5	10	30	0	0.3	5	0.2	3	6	10	0	250	10	5

	Vin(of	T)		Vin(o	n)		Vo	(on)			IЬ		lc(OF	F)		Vce(S	AT)		Cob (@ F=1	MHz		CUT-O	FF FR	EQ
PART	Max	Vce	kc	Min	Vœ	S	TYP	Macx	k	Ð.	Max	Vin	Meax	Voc	Vin	Max	lc	lb.	TYP	Max	Vcb	le	ıπ	Vce	lc lc
NUMBER	3	(∨)	(mA)	(8)	(2)	(uA)	(S)	8	(mA)	(mA)	(mA)	8	(uA)	8	(%)	i M	(mA)	(mA)	(pF)	(pF)	S	(mA)	(MHz)		(mA)
DTA114G	0.3	5	0.1	3	0.3	20	0.1	0.3	10	0.5	7.2	5	10	30	٥	0.3	10	0.5	3	6	10	0	250	10	5
DTA124G	0.5	· 5	0.1	3	0.3	10	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	10	0.5	3	6	10	-	250	10	-
DTA144G	0.8	5	0.1	3	0.3	2	0.1	0.3	5	0.25	1.8	5	10	30	0	0.3	10	0.5	3	6	10	0	250	10	
DTA115G	0.3	5	0.1	1.4	0,3	1	0.1	0.3	5	0.25	0.88	5	10	30	0	0.3		0.25	3	-	10	-			<u></u>
DTB114G	0.3	5	0.1	3	0.3	20	0.1	0.3	10	0.5	7.2	5	10	30	0		50	2.5		-		-	250	10	-31
								0.0		0.0	7.4			- 30		1 0.3	30	2.5	. 3	5	10	0	200	10	5

ELECTRICAL CHARACTERISTICS: 500 mA Series

	Vin(o	7)		Vin(o	n)		You	(on)		•	lb		lc(OF	F)		Voe(S	MI		Cob (බ F = 1	MHz		CUT-O	SE ED	ΕΛ
PART	Max	Vœ	k	Min	Voe	lc	TYP	Max	kc	lb	Max	Vin	Max	Voc	Vin	Max	le	Ь	TYP	Max	Vcb	_	601-0	Vœ	l ic
NUMBER		(∨)	(mA)	⊗	(%)	(uA)	(5)	(%)	(mA)	(mA)	(mA)	(V)	(uA)	(3)	8	M	(mA)	(mA)		(pF)	8	(mA)	(MHz)		(mA)
DTB113E	0.5	5	0.1	3	0.3	20	0.1	0.3	50	25	7.2	3	10	30	Ô	0.3	3	0.25	3	6	10	(1112)	200	10	50
DT8113Z	0.3	5	0.1	3	0.3	20	0.1	0.3	50	2.5	7.2	5	10	30	0	0.3	5	0.25	3	6	10	-	200	10	50
DTB114E	0.5	5	0.1	3	0.3	10	0.1	0.3	50	2.5	0.88	5	10	30	0	0.3		0.25	3	6	10	- 0	200		
OTB123E	0.5	5	0,1	3	0.3	20	0.1	0.3	50	2.5	3.8	5	10	30	0	0.3		0.25	- 3		10			10	50
DTB143E	0.5	5	0.1	3	0.3	20	0.1	0.3	50	2.5	1.8	5	10	30	0	0.3		0.25	- ;	- 0		- 0	200	10	50
DTB123Y	0.3	5	0.1	2	0.3	20	0.1	0.3	50	2.5	3.6	5	10	30		0.3	4	0.25	3	-	10	- 0	200	10	50
DTB122J	0.3	5	0.1	2	0.3	30	0.1	0.3	50	2.5	4.5	5	10	30	0	0.3	- 5	0.25	3	6	10	0	200	10	50
DTB133H	0.3	5	0.1	2	0.3	20	0.1	0.3	50	2.5	24	- 5	10	30	 	0.3			- 3	- 6	10	0	200	10	50
·													1 10	30		1 43] 3	0.25	3	6	10	_ 0	200	10	50

1 1	Vin(o	1)		Vin(or	n)		Vo	(on)			lb		lc(OF	F)		Voe(S	AT		Cob (a E_1			CLET 6	CC CO	=
PART	Max	Vœ	lc	Min	Voe	lc	TYP	Max	kc	lb	Max	Vin	Mex	Voc	Vin	Max	lc	В	TYP	Macc	Vcb		CUT-O		1 .
NUMBER	(2)	(7)	(mA)	(2)	(V)	(uA)	8	(%)	(mA)	(mA)	(mA)	8	(uA)	8	8	8	(mA)	(mA)	ωĐ	(oF)	νσο ΛΛ	(mA)	71	Vce	lc
DTB123T	0.3	5	0.1	3	0.3	20	0.1	0.3	10	0.5	7.2	5	10	30	7.7	0.3		0.25	3	(Pr)	7.7	(m/s)			(mA)
DT8143T	0.5	_ 5	0.1	3	0.3	10	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	_	0.25			10	-	200	10	
DTB163T	8.0	5	0.1	3	0.3	2	0.1	0.3	5	0.25	18	5	10	30	_				ان ا	-	10	0	200	10	5
DYB114T	Õ.S	5	0.1						-	W. HOPELO		l j		- 52		0.3		0,25	-3	9	10	0	200	10	5
	لعتب		<u> </u>		0.3		U.1	0.3	3	0.25	Ô.88	5	10	30	0	0.3	5	0.25	3	6	10	0	200	10	5

7828999 0014557 382 📟

DIGITAL TRANSISTOR: PNP

ELECTRICAL CHARACTERISTICS: 100 mA Series

		RESISTO	RVALUE		R2/R	1	kc	INPU	TVOLT	hFE			lcbo		loso			1	
PART NUMBER	TYP	R1 (K)	R2 (K)	Min	Тур	Mex	Mex (mA)	Min (V)	Mex (V)	Min	V00		Mex (uA)		Max (uA)	1		DIE	EQUIVALENT CIRCUIT
DTA113Z	PNP	1.0	10.0	8	10	12	100	-10	5	33	5	5	0.5	50	0.5	50	E11/111		55511
DTA114E	PNP	10.0	10.0	0.5	1	1.2	100	-40	10	30	5	5	0.5	50	0.5	50	14		
DTA114W	PNP	10.0	4.7	0.37	0.47	0.57	100	-30	10	24	5	10	0.5	50	0.5	50	74	_	1
DTA114Y	PNP	10.0	47.0	3.7	4.7	5.7	100	4	6	68	5	5	0.5	50	0.5	50	54	A762	1
DTA115E *	PNP	100.0	100.0	0.8	1	1.2	100	4	10	82	5	5	0.5	50	0.5	50	19	B861	1
DTA115U	PNP	100.0	10.0	0.06	0.1	0.12	100	4	10	27	5	5	0.5	50	0.5	50	E79/179	8865	ĺ
DTA123E	PNP	2.2	2.2	0.8	1	1.2	100	-12	10	20	5	20	0.5	50	0.5	50	12	A733	1
DTA123J	PNP	2.2	47.0	17	21	26	100	-12	5	80	5	10	0.5	50	0.5	50	E32/132	A774	
DTA123Y	PNP	2.2	10.0	3.6	4.5	5.5	100	-12	5	33	5	10	0.5	50	0.5	50	52	A777	RI
DTA124E	PNP	22.0	22.0	0.8	1	1.2	100	-40	10	56	5	5	0.5	50	0.5	8	15	A761	(Seen) (Common
DTA124X	PNP	220	47.0	1.7	2.1	2.6	100	-40	10	68	5	5	0.5	50	0.5	5υ	35	A770	*
DTA143E	PNP	4.7	4.7	0.8	1	1.2	100	-30	10	20	- 5	10	0,5	50	0.5	50	· 13	A768	90(+)
DTA143X	PNP	4.7	10.0	1.7	2.1	2.6	100	-20	7	30	5	10	0.5	50	0.5	50	33	A769	
DTA143Y	PNP	4.7	22.0	3.7	4.7	5.7	100	-30	6	56	5	5	0.5	50	0.5	52	53	A785	
DTA143Z	PNP	4.7	47.0	8	10	12	100	-30	· 5	80	5	10	0.5	50	0.5	50	E13/113	A775	
DTA144E	PNP	÷7.0	47.0	0.8	1	1.2	100	49	15	68	5	5	0.5	50	0.5	5.	16	A782	
DTA144V	PNP	~7.0	10.0	0.17	0.21	0.25	100			33	5	5	0.5	50	0.5	52		A774	
DTA144W	PNP	47.0	22.0	0.37	0.47	0.57	100	-40	10	56	5	5	0.5	50	0.5	5C		A767	
DTA214Y	PNP	10	47	3.7	4.7	5.7	100	-40	6	68	5	5	0.5	50	0.5	50		A762	
DTA1D3R	PNP	2.7	1.0	0.33	0.37	0.41	100	-15	15	20	5	30	0.5	50	0.5	50		A784	

		RES:STC	R VALUE	Vabo	Voec	Vebo	kc		hFE				kcbo		lebo	7			
PART	TYP	R1	R2	Max	Max	Max	Max	Min	Тур	Max	Vœ	kc	Max	Vcb	Max	Veb	PART	DIE	EQUIVALENT
NUMBER		(K.)	(K)	8	_(^)	8	(mA)			<u> </u>	8	(mA)	(uA)	(0)	(ua)	M	MARK	TYPE	
DTA143T	PNP	4.7	NONE	50	50	5	100	100	250	600	3	1	0.5	50	0.5	-	93	A764	
DTA114T	PNP	19.0	NONE	50	50	5	100	100	250	600	5	1	0.5	50	0.5	—		A765	
DTA124T	PNP	22.0	NONE	50	50	5	100	100	250	600		-	0.5	50					
DTA144T	PNP	47.0						-		+		-	_	-	0.5	41	95	A771	P1
			NONE	50	_50	5	100	100	250	600	5	. 1	0.5	50	0.5	4	96	A772	
DTA115T	PNP	100.0	NONE	50	50	5	100	100	250	600	5	1	0.5	50	0.5	4		B864	
DTA125T	PNP	200.0	NONE	50	50	5	100	100	250	600	- 5	1	0.5	50					
DTA113T	PNP	10					_						_		0.5	-1	24	B863	
D.A.131	FRIT	1.0	NONE	50	50	5	100	100	250	600	5	1	0.5	50	0.5	4	91	A786	

		RESISTO	R VALUE	Vabo	Voec	Vebo	ic		hFE				Icbo		lebo	1			
PART	TYP	Rí	R2	Max	Max	Max	Max	Min	Тур	Max	Vœ	kc	Max	Vcb		Veb	PART	DIE	EQUIVALENT
NUMBER		(K)	(K)	8	8	M	(mA)			1	3	(mA)	(UA)	S	(uA)	M	MARK	TYPE	CIRCUIT
DTA114G	PNP	0	10.0	50	50	5	100	30	-		5	5	0.5	50	580	4		A780	CIACOIT
DTA124G	PNP	0	22.0	50	50	5	100	56	-		5	5	0.5	50	260	1		A781	
DTA144G	PNP	0	47.0	50	50	5	100	68			5	5	0.5	50	130	1		A782	
DTA115G	PNP	0	100.0	50	50	5	100	82			5	5	0.5	50	58				~
DTB114G	PNP	0	10.0	50	50	5	500	58	-	-	5	100		_				B862	
2.2.140			10.0	30	30	- 31	500	- 36			_ 5	100	0.5	50	0.5	4	L14	8726	

ELECTRICAL CHARACTERISTICS: 500 mA Series

		RESISTO	RVALUE		R2/R	1	k	INPU	VOLT	hFE		-	lcbo		loso				
PART NUMBER	TYP	R1 (K)	R2 (K)	Min	Тур	Max	Max (mA)	Min (V)	Max (V)	Min	V ∞ e	kc (mA)	Macc (uA)		Max	Vœ (Y)	PART MARK	DIE TYPE	EQUIVALENT CIRCUIT
DTB113E	PNP	1.0	1.0	0.8	1	1.2	500	-10	10	33	5	50	0.5	50	0.5	50		B717	CIACOII
DTB1132	PNP	1.0	10.0	8	10	12	500	-10	5	56	-	50	0.5						
OT8114E	PNP	10.0	10.0	0.8				-						50	0.5	50	G11	B718	
					1	1.2	500	-40	10	56	5	50	0.5	50	0.5	50	F14	B714	- A1
DTB123E	PNP	2.2	2.2	0.8	1	1.2	500	-12	10	39	5	50	0.5	50	0.5	50		B712	(See
DTB143E	PNP	4.7	4.7	0.8	1	1.2	500	-30	10	47	-	50							RE
DTB123Y	PNP	2.2							10				0.5	50	0.5	50	F13	8713	
			10.0	3.6	4.5	5.5	500	-12	_ 5	56	5	50	0.5	50	0.5	50	F52	B715	
DTB122J	PNP	0.22	4.7	17.1	21.3	25.6	500	-5	5	47	5	50	0.5	50					(factor)
DTB133H	PNP	3.3	10.0	_	-	_									0.5	50	G3C	B725	
		0.5	.0.0	24	3	3.7	500	-20		56	5	50	0.5	50 (0.5	50	G98	B719	

1		RESISTO	RVALUE	Vcbo	Voec	Vebo	\ lc		hFE				Icbo		lebo			T	r
PART	TYP	R1	R2	Max	Max	Max	Max	Min	Тур	Max	Voe	kc	Marx	Vcb		Veb	D		
NUMBER		(K)	(K)	8	(N)		(mA)		.,,,		8	(mA)		8	(uA)	8	PART MARK	DIE	EQUIVALENT
DTB123T	PNP	2.2	NONE	50	50	3	500	100	250	600	5	50	0.5	50	0.5	144		TYPE	CIRCUIT
DTB143T	PNP	4.7	NONE	50	50	5	500	100	250	600	5	50	0.5	50				B723	
DTB163T	PNP	6.8	NONE	50	50	5	500	100	250	600					0.5	1		B720	
DTB114T	PNP	10.0	NONE	50	_			-		-		50	0,5	50	0,5	4	E97	B721	
			HOITE		50	3	500	100	250	600	5	50	0.5	50	0.5	4	E94	8722	المادر

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DIGITAL TRANSISTOR: NPN

ELECTRICAL CHARACTERISTICS: 100 mA Series

	Vin(o	n)		Vin(o	n)		Vo	(on)			lb		lc(OF	F)		Voe(t	EAT)		Cob	@ F=	MHz		cnt-o	FF FR	EQ
PART	Max	Voe	k	Min	Voe	k	TYP	Mex	lc	1b	Max	Vin	Mex	Voo	Vin	Mex	lo	10	TYP	Mex	Vcb	le	ıπ	Voe	lc
NUMBER	(%)	8	(mA)	8	(%)	(mA)	(4)	8	(mA)	(mA)	(mA)	(0)	(uA)	(9)	8	(4)	(mA)	(mA)	(pF)	(pF)	8	(mA)	(MHz)	(2)	(mA)
DTC113Z	0.3	5	0.1	3	0.3	20	0.1	0.3	10	0.5	7.2	5	10	8	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC114E	0.5	5	0.1	3	0.3	10	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC114W	0.8	5	0.1	3	0.3	2	0.1	0.3	10	0.5	0.88	_5	10	30	٥	0.3	5	0.25	3	6	10	0	250	10	5
DTC114Y	0.3	5	0.1	1.4	0.3	1	0.1	0.3	5	0.25	0.88	_ 5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC115E	0.5	5	0.1	3	0.3	1	0.1	0.3	5	0.25	0.15	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC115U	3.3	5	0.1	1.5	0.3	1	0.1	0.3	7	0.2	0.1	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC123E	0.5	5	0.1	3	0.3	20	0.1	0.3	10	0.5	3.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC123J	0.5	5	0.1	1.1	0.3	5	0.1	0.3	5	0.25	3.6	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC123Y	0.3	5	0.1	3	0.3	20	0.1	0.3	10	0.5	3.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC124E	0.5	5	0.1	3	0.2	5	0,1	0.3	10	0.5	0.36	5	10	30	0	0.3	5	0.25	3	- 6	10	0	250	10	5
DTC124X	0.4	5	0.1	2.5	0.3	2	0.1	0.3	10	0.5	0.36	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC143E	0.5	5	0.1	3	0.3	20	0.1	0.3	10	0.5	1.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC143X	0.3	5	0.1	2.5	0.3	20	0.1	0,3	10	0.5	1.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC143Y	0.3	5	0.1	3	0.3	10	0.1	0.3	10	0.5	1.8	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC143Z	0.5	5	0.1	1.3	0.3	5	0.1	0.3	5	0.25	1.5	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC144E	0.5	5	0.1	3	0.3	2	0.1	0.3	10	0.5	0.18	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC144V	1.0	5	0,1	6	0.3	2	0.1	0.3	10	0.5	0.16	5	10	30	0	0.3		0.25	3	6	10	0	250	10	5
DTC144W	8.0	5	0.1	4	0.3	2	0.1	0.3	10	0.5	0.16	5	10	30	0	0.3	5	0.25	3	6	10	0	250	10	5
DTC214Y	0.3	5	0.1	1.4	0.3	1	0.1	0.3	50	2.5	0.88	5	10	30	0	0.3	5	0.25	3	6	10	-	250	10	5
DTC1D3R	1.5	5	0.1	4	0.3	5	0.1	0.3	10	1	3.7	5	10	30	0	0.3	-	0.25	3	6	10	0	250	10	-5

	Vin(o	M)		Vin(o	n)		Vo	(on)			lb		lc(OF	F)		Voe(S	AD		Cob	@ F = 1	MHz	-	CUT-O	EE ED	<u>=0</u>
PART	Max	Vœ	ñ	Min	Vœ	lc	TYP	Max	lc	1b	Max	Vin	Mex	Voc	Vin	Max	la	Ь	TYP	Max	Vcb	la.	97	Voe	·
NUMBER	8	8	(mA)	3	8	(uA)	(5)	Ø	(mA)	(mA)	(mA)	(9)	(uA)	8	8	8		(mA)		(pF)	83	(mA)	(MHz)		kc (mA
DTC143T	0.3	5	0.1	3	0.3	20	0.1	0.3	10	0.5	72	3	10	30	0	0.3	- 5	0.25	3	6	10	0	250	10	
DTC114T	0.5	5	0.1	3	0.3	10	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	10	1	3	-	10	-	250		<u>ٿ</u>
DTC124T	0.8	5	0.1	3	0.3	2	0.1	0.3	5	0.25	1.8	5	10	30	0	0.3	5	0.5		-		0		10	
DTC144T	0.3	5	0.1	1.4	0.3	1	0.1	0.3	5	0.25	0.88	5	10	30	0	0.3	5	0.5	-	-	10		250	10	-3
DTC115T	0.5	5	0.1	3	0.3	1	0.1	0.3		0.25	0.15	5	10	30	-	0.3		0.5	- 3	-	10	- 0	250	10	-3
DTC125T	0.8	5	0.1	3	0.3		0.1	0.3		0.25	0.33	<u> </u>		-				uı	3	- 6	10	0	250	10	5
DTC113T	0.5	<u> </u>					0.1	_					10	30	- 0	0.3	0.5	0.05	3	6	10	0	250	10	5
0101131	0.5	3	0.1	3	0.3	20	0.1	0.3	10	0.5	3.8	5	10	30	0	0.3	5	0.2	3	6	10	0	250	10	5

	Vin(o	۲)		Vin(o	n)		Vo	(on)			ib		lc(OF	F)		Voe(S	CTAS	 -	Cob (@ F=1	MHz		CUT-O	EE EO	E0
PART	Max	Vce	Ŋ	Min	Vœ	lc	TYP	Max	kc	Ь	Max	Vin	Mex	Voc	Vin	Max	le	ь	TYP	Max	Vcb		π	Voe	k
NUMBER	3	(X)	(mA)	(7)	8	(uA)	8	M	(mA)	(mA)	(mA)	(V)	(44)	8	(%)	M	(mA)	(mA)	1	(pF)	8	(mA)	(MHz)		(mA)
DTC114G	0.3	5	0.1	3	0.3	20	0.1	0.3	10	0.5	7.2	5	10	30	Ó	0.3	10	0.5	1	6	10		250		(1154)
DTC124G	0.5	5	0.1	3	0.3	10	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	10	0.5				-		10	<u> </u>
DTC144G	0.8	5	0.1	3	0.3	2	0.1	0.3	5	0.25	1.8	5	10	30	-	0.3			3		10	0	250	10	5
DTC115G	0.3	5	0.1	1.4	0.3	1	0.1	0.3	-		0.88	-	_	_	-	_	10	0.5	3	- 5	10	. 0	250	10	5
DTD114G	0.3	5	0.1								-		10	30	0	0.3	10	0.25	3	6	10	0	250	10	5
3.311461	0.5	3	0.1	3	0.3	20	0.1	0.3	10	0.5	7.2	5	10	30	0	0.3	50	2.5	3	6	10	0	200	10	- 5

ELECTRICAL CHARACTERISTICS: 500 mA Series

	Vin(o	m)		Vin(o	n)		Vo	(on)			lb		lc(OF	Ð		Voe(S	AT		Cob	- F - 1	1444-				
PART	Max	Vœ	lc	Min	Vos	lc	TYP	Max	lc	Ь	Max	Vin	Max	Voc	Vin	Max	<u> </u>		Cob	ĭ	_		CUT-O		EO
NUMBER	(2)	(8)	(mA)	8	M	(uA)	8	8	(mA)				(UA)	8	8		(C	Ь	TYP	Max	Vcb	le	m	Voe	1c
DTD113E	0.5	5	0.1	3	0.3	20	0.1	0.3	50	2.5	70	(V)	10		(4)	(0)	(mA)	4.10	(pF)	(pF)	8	(mA)	(MHz)	(2)	(mA)
DTD113Z	0.3	5	0.1	3	0.3	20					7.2	-3	10	30	-	0.3	5	0.25	3	6	10	0	200	10	50
DTD114E	0.5	5	0.1	3			0.1	0.3	50	2.5	7.2	2	10	30	0	0.3	5	0.25	3	6	10	0	200	10	50
DTD123E	0.5	5	_		0.3	10	0.1	0.3	50	2.5	0.88	5	10	30	0	0.3	5	0.25	3	6	10	0	200	10	50
DTD143E			0.1	3	0.3	20	0.1	0.3	50	2.5	3.8	5	10	30	0	0.3	5	0.25	3	6	10	0	200	10	50
	0.5	3	0.1	3	0.3	20	0.1	0.3	50	2.5	1.8	5	10	30	0	0.3	5	0.25	3	6	10	-	200	10	
DTD123Y	0.3	5	0.1	2	0.3	20	0.1	0.3	50	2.5	3.6	5	10	30	0	0.3		0.25	1			- ÷		-	50
DTD122J	0.3	5	0.1	2	0.3	30	0.1	0.3	50	2.5	4.5	5	10	30	0	0.3	_	0.25	- 3	-	10	0	200	10	50
DTD133H	0.3	5	0.1	2	0.3	20	0.1	0.3	50	2.5	2.4		10	30	-	_			3	- 6	10	0	200	10	50
														_30		0.3	- 3	0.25	3	6	10	0	200	10	50

1	Vin(of	7)		Vin(o	n)		Vo	(no)			lb		Ic(OF	F		Voe(S	14.70		T						
PART	Max	Vce	lc	Min	Vce	lc	TYP	Marx	<u>ل</u> م	lb	Mex	Vin	4 `			• `	<u> </u>		Cob	2) F=1	MHz		COT-0	ff fr	EQ
NUMBER	8	M	(mA)		8	(UA)		~	(mA)			1	Mex	Voc	Vin	Max	lic	1b	TYP	Max	Vcb	le	n l	Voe	k
DTD1231	0.3	5	0.1	3	0.3	20	(*)	1			(mA)	(4)	(uA)	(2)	3	M	(mA)	(mA)	(pF)	(pF)	(0)	(mA)	(MHz)	M	(mA)
DTD143T	0.5		0.1			20	0.1	0.3	10	0.5	7.2	3	10	30	0	0.3	5	0.25	3	6	10	0	200	10	- 5
DTD163T	-			-3	0.3	10	0.1	0.3	10	0.5	0.88	5	10	30	0	0.3	5	0.25	3	6	10	0	200	10	-
	Q,8	9	0,1	3	0.3	2	0,1	0.3	5	0.25	1.8	_ 5	10	30	0	0.3	5	0.25	3	-	10			*********	ليسا
DTD114T	0.3	5	0.1	1.4	0.3	1	0.1	0.3	5	0.25	0.88	5	10	30	0	0.3	Waste, Prival	in the same				- 0	200	10	
												<u> </u>						0.25	3	6	10	0	_200	10	5

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DIGITAL TRANSISTOR: NPN

ELECTRICAL CHARACTERISTICS: 100 mA Series

		RESISTO	RVALUE		P2/R	1	kc	INPU	T VOLT	hFE			lcbo		loso				
PART	TYP	R1	R2	Min	Тур	Max	Max	Min	Max	Min	Voe	2	Max	Vab	Mex	Voe	PART	DIE	EQUIVALENT
NUMBER		(K)	(K)_				(mA)	(8)	8		3	(mA)	(uA)	8	(uA)	8	MARK	TYPE	CIRCUIT
DTC113Z	NPN	1.0	10.0	8	10	12	100	-10	5	33	5	5	0.5	50	0.5	50	E12/121	C776	
DTC114E	NPN	10.0	10.0	0.8	1	1.2	100	-40	10	30	5	5	0.5	50	0.5	50	24	C768	
DTC114W	NPN	10.0	4.7	0.37	0.47	0.57	100	-30	10	24	5	10	0.5	50	0.5	50	84	C778	
DTC114Y	NPN	10.0	47.0	3.7	4.7	5.7	100	9	8	68	5	5	0.5	50	0.5	50	64	C762	
DTC115E *	NPN	100.0	100.0	0.8	1	1.2	100	7	10	82	5	5	0.5	50	0.5	50	29	D861	
DTC115U	NPN	100.0	10.0	0.08	0.1	0.12	100	7	10	27	5	5	0.5	50	0.5	50	E89/189	D865	
DTC123E	NPN	2.2	2.2	0.8	1	1.2	100	-12	10	20	5	20	0.5	50	0.5	50	22	C733	
DTC123J	NPN	2.2	47.0	17	21	26	100	-12	5	80	5	10	0.5	50	0.5	50	E42/142	C774	
DTC123Y	NPN	2.2	10.0	3.5	4.5	5.5	100	-12	5	33	5	10	0.5	8	0.5	50	62	C777	RI CONT
DTC124E	NPN	22.0	22.0	0.8	1	1.2	100	7	10	56	5	5	0.5	50	0.5	50	25	C761	(Bass)
DTC124X	NPN	22.0	47.0	1.7	21	2.6	100	7	10	68	5	5	0.5	50	0.5	50	45	C770	·
DTC143E	NPN	4.7	4.7	0.8	11	1.2	100	-30	10	20	5	10	0.5	50	0.5	50	23	C768	
DTC143X	NPN	4.7	10.0	1.7	2.1	2.6	100	-20	7	30	5	10	0.5	50	0.5	50	43	C769	
DTC143Y	NPN	4.7	22.0	3.7	4.7	5.7	100	-30	6	56	5	5	0.5	50	0.5	50	63	C785	
DTC143Z	NPN	4.7	47.0	8	10	12	100	-30	- 5	80	5	10	0.5	50	0.5	50	E23/123	C775	
DTC144E	NPN	47.0	47.0	0.8	1	1.2	100	49	15	68	5	5	0.5	50	0.5	50	26	C782	
DTC144V	NPN	47.0	10.0	0.17	0.21	0.26	100			33	5	5	0.5	50	0.5	50		C774	
DTC144W	NPN	47.0	22.0	0.37	0.47	0.57	100	-40	10	56	5	5	0.5	50	0.5	50		C757	•
DTC214Y	NPN	10	47	3.7	4.7	5.7	100	-40	6	68	5	5	0.5	50	0.5	50		C762	
DTC1D3R	NPN	2.7	1.0	0.33	0.37	0.41	100	-15	15	20	5	30	0.5	50	0.5	50		C784	
																			

		RESISTO	RVALUE	Vcbo	Voso	Vebo	ic		hFE				Icbo		lebo	Ĩ			
PART	TYP	R1	R2	Max	Max	Max	Max	Min	Тур	Max	Vo	lc	Max	Vcb	Max	Veb	PART	DIE	EQUIVALENT
NUMBER		(K)	(K)	8	(7)	8	(mA)				8	(mA)	(uA)	M	(uA)	(0)	MARK	TYPE	CIRCUIT
DTC143T	NPN	4.7	NONE	50	50	5	100	100	250	600	5	_	0.5	50	0.5	4	3	C764	
DTC114T	NPN	10.0	NONE	50	50	5	100	100	250	600	5	1	0.5	50	0.5	4		C765	
DTC124T	NPN	22.0	NONE	50	50	5	100	100	250	600	5	1	0.5	50	0.5	4		C771	R1 Column
DTC144T	NPN	47.0	NONE	50	50	5	100	100	250	600	5	1	0.5	50	0.5	4		C772	
DTC115T	NPN	100.0	NONE	50	50	5	100	100	250	600	5	1	0.5	50	0.5	4		D664	
DTC125T	NPN	200.0	NONE	50	50	5	100	100	250	600	5		0.5	50	0.5		OA.	D863	
DTC113T	NPN	1.0	NONE	50	50	5	100	100	250	600	-	1	0.5	50	0.5	4		C786	

• •		RESISTO	RVALUE	Vcbo	Voec	Vebo	lc		hFE				Icbo		lebo				
PART	TYP	R1	R2	Max	Max	Max	Max	Min	Тур	Max	Vœ	kc	Max	Vcb	Max	Veb	PART	DIE	EQUIVALENT
NUMBER		(K)	(K)	8	8	(2)	(mA)				(%)	(mA)	(uA)	(4)	(uA)	M	MARK	TYPE	CIRCUIT
DTC114G	NPN	0	10,0	50	50	5	100	30	•	٠	5	5	0.5	50	580	4	K24	C780	
DTC124G	NPN	0	22.0	50	50	5	100	56	•	1 -	5	5	0.5	50	260	4	K25	C781	Boss c
DTC144G	NPN	0	47.0	50	50	5	100	68		-	5	5	0.5	50	130	1		C782	RE
DTC115G	NPN	0	100.0	50	50	5	100	82	-	-	5	5	0.5	50	58	-			*
DTD114G	NPN	0	10.0	50	50	5	500	58	•		5	100	0.5	50	0.5	7		D862 D726	

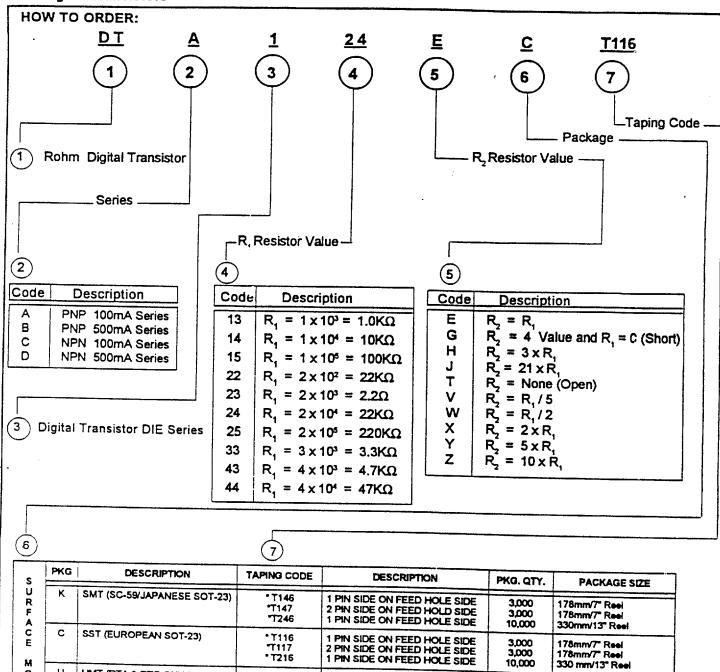
ELECTRICAL CHARACTERISTICS: 500 mA Series

		RESISTO	RVALUE		R2/R	1	k	INPU	T VOLT	hFE		-	Icbo		loso	T		T	
PART	TYP	R1	R2	Min	Тур	Max	Max	Min	Max	Min	Voe	lc	Max	Vab		Voe	PART	DIE	EQUIVALENT
NUMBER		(K)	(K)				(mA)	(4)	(%)		(0)	(mA)	(uA)	8	(uA)	8	MARK	TYPE	
	NPN	1.0	1.0	0.8	1	1.2	500	-10	10	33	5	50	0.5	50	0.5	50	F21	D717	
DTD113Z	NPN	1.0	10.0	8	10	12	500	-10	5	56	5	50	0.5	50	0.5	50		D718	
DTD114E	NPN	10.0	10.0	0.8	1	1.2	500	-40	10	56	5	50	0.5	50	0.5	50		D714	
DTD123E	NPN	2.2	2.2	0.6	1	1.2	500	-12	10	39	5	50	0.5	50	0.5			D712	No. RI CONT
DTD143E	NPN	4.7	4.7	0.8	1	1.2	500	-30	10	47	5	50	0.5		0.5	50			(Gase) (Comme
DTD123Y	NPN	2.2	10.0	3.6	4.5	5.5	500	-12		56	-	50	0.5	_				D713	
DTD122J	NPN			-		25.6	500	-5		47	-				0.5	50		D715	
DTD133H	NPN		10.0	2.4							-3	50	0.5		0.5	50	G4C	D725	(Enter
2.2.0011		3.5	10.0	4	3	3.7	500	-20	6	56	5	50	0.5	50	0.5	50	G06	D719	

		RESISTO	RVALUE	Vcbo	Voec	Vebo	∖ lc		hFE				icbo		lebo				
PART	TYP	R1	R2	Max	Max	Macx	Max	Min	Typ	Max	Voe	lc	Mex	Vcb	_	Veb	PART	- O.E.	50
NUMBER		(K)	(K)	(2)	8	l os l	(mA)		- 7,5		~	(mA)		8	(uA)	8	MARK	DIE	EQUIVALENT
DTD1231	NPN	2.2	NONE	50	50	5	500	100	250	600	5	50	0.5	50	0.5			TYPE	CIRCUIT
DTD143T	NPN	4.7	NONE	50	50	5	500	100	250	600		50	0.5	50	0.5			0723	RIO
DTD163T	NPN	6.8	NONE	50	50	5	500			-				_				D720	
DTD114T	NPN	10.0			THE PERSON			100	250	600	CONTRACTOR AND ADDRESS OF THE PARTY AND ADDRES	50	0.5	50	0.5	4	E 07	D721	waa sa s
0.01141	146.14	10.0	NONE	50	50	5	500	100	250	600	5	50	0.5	50	0.5	4	E04	D722	

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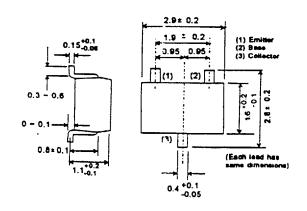
s	PKG	DESCRIPTION	TAPING CODE	DESCRIPTION	PKG. QTY.	PACKAGE SIZE
URFA	K	SMT (SC-59/JAPANESE SOT-23)	*T146 *T147 *T246	1 PIN SIDE ON FEED HOLE SIDE 2 PIN SIDE ON FEED HOLD SIDE 1 PIN SIDE ON FEED HOLE SIDE	3,000 3,000 10,000	178mm/7" Reel 178mm/7" Reel 330mm/13" Reel
C E	С	SST (EUROPEAN SOT-23)	*T116 *T117 *T216	1 PIN SIDE ON FEED HOLE SIDE 2 PIN SIDE ON FEED HOLE SIDE 1 PIN SIDE ON FEED HOLE SIDE	3,000 3,000 10,000	178mm/7" Reel 178mm/7" Reel 330 mm/13" Reel
0 0 0	U	UMT (DTA & DTC ONLY)	*T106 T107	1 PIN SIDE ON FEED HOLE SIDE 2 PIN SIDE ON FEED HOLE SIDE	3,000	178 mm/7" Reel 178 mm/7" Reel
T	E	EM3 (DTA & DTC ONLY)	*TL TR	1 PIN SIDE ON FEED HOLE SIDE 2 PIN SIDE ON FEED HOLE SIDE	3,000 3,000	178 mm/7* Reel 178 mm/7* Reel
LEA	s	SPT (Short TO-92)	*TP NONE	AMMO BOX RADIAL BULK	5,000 2,000	W-335/H-135/D-40(mm) Polyethylene Bag
D E D	٧	ATV	. 1/3 1/2	AMMO BOX RADIAL AMMO BOX RADIAL	2,500 2,500	W-334/H-280/D-41(mm) W-334/H-280/D-41(mm)
	L	FTL	TL2 TL3	AMMO BOX RADIAL AMMO BOX RADIAL	2,500 2,500	W-334/H-280/D-41(mm) W-334/H-280/D-41(mm)
V-0	F	Discontinued	"NONE C1	BULK TUBE	2,000 8,000	Polyethylene Bag L-565/W-4.2/H-11.5(mm)
E S	^	Discontinued	NONE C2	BULK TUBE	2,000 8,000	Polyethylene Bag L-565/W-4.2/H-12.6(mm)

Note: SOT-23, SC-59 and SPT packages are standard products.

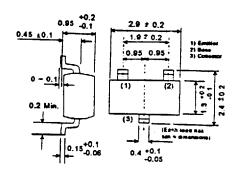
Standard Taping Codes

ROHM CORPORATION, Rohm Electronics Division, 3034 Owen Dr., Antioch, TN 37013 (615)641-2020 FAX (615)641-2022

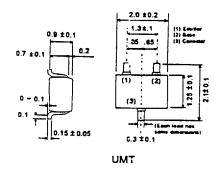
Surface Mount Packages: Unit (mm)

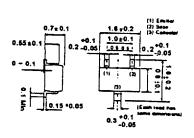


SMT (SC-59/Japanese SOT-23)



SST (European SOT-23)





ЕМ3

