



DTA123JCA

Digital Transistors

Features

- Epitaxial Planar Die Construction
- Complementary NPN Types Available
- Built-In Biasing Resistors
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

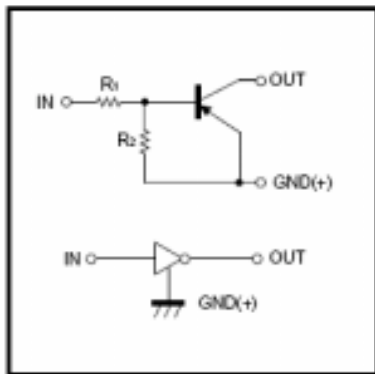
Absolute maximum ratings @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V _{CC}	Supply voltage	---	50	---	V
V _{IN}	Input voltage	-5	---	+12	V
P _d	Power dissipation	---	200	---	mW
T _j	Junction temperature	---	150	---	°C
T _{stg}	Storage temperature	-55	---	150	°C
I _O	Output current	---	100	---	mA
I _{C(MAX)}		---	100	---	

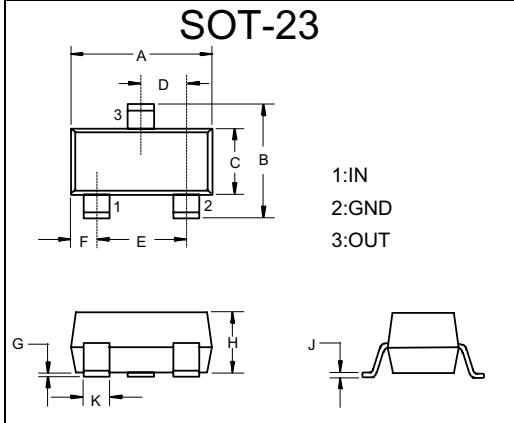
Electrical Characteristics @ 25°C

Symbol	Parameter	Min	Typ	Max	Unit
V _{I(off)}	Input voltage (V _{CC} =5V, I _O =100 μA)	---	---	0.5	V
V _{I(on)}		(V _O =0.3V, I _O =5mA)	1.1	---	---
V _{O(on)}	Output voltage (I _O =5mA, I _I =0.25mA)	---	0.1	0.3	V
I _I	Input current (V _I =5V)	---	---	3.6	mA
I _{O(off)}	Output current (V _{CC} =50V, V _I =0)	---	---	0.5	μA
G ₁	DC current gain (V _O =5V, I _O =10mA)	80	---	---	---
R ₁	Input resistance	1.54	2.2	2.86	KΩ
R ₂ /R ₁	Resistance ratio	17	21	26	---
f _T	Transition frequency (V _{CE} =10V, I _E =5mA, f=100MHz)	---	250	---	MHz

Equivalent circuit

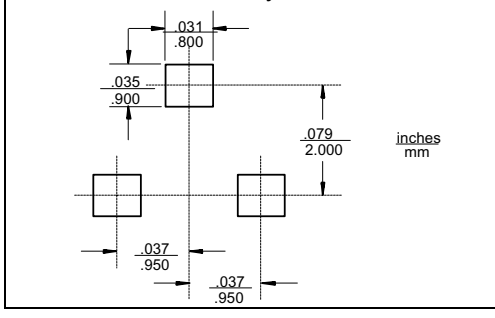


*Marking: E32



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



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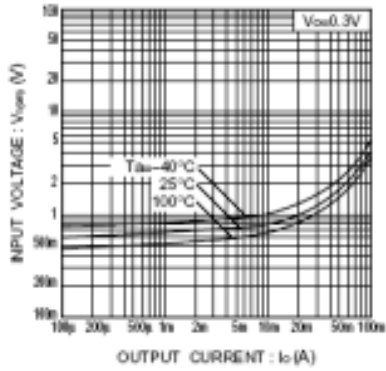


Fig.1 Input voltage vs. output current (ON characteristics)

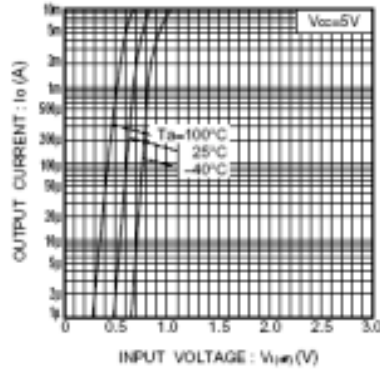


Fig.2 Output current vs. input voltage (OFF characteristics)

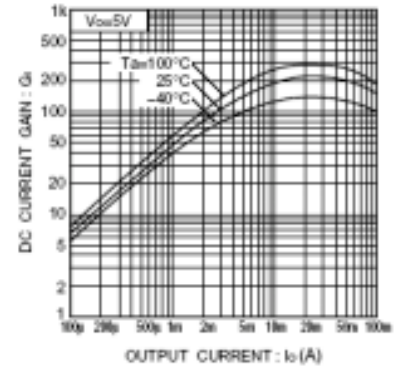


Fig.3 DC current gain vs. output current

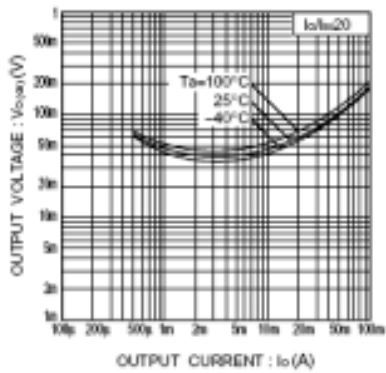


Fig.4 Output voltage vs. output current



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

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