Low frequency transistor 2SA2018 / 2SA2030 / 2SA2119K

The transistor of 500mA class which went only into 2125 size conventionally was attained in 1608 sizes or 1208 sizes.

Applications

For switching, for muting.

● Features

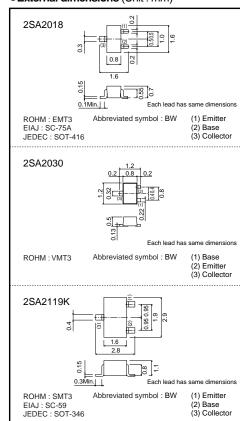
- 1) A collector current is large.
- 2) Collector saturation voltage is low. VCE (sat) ≤ 250mA At Ic = -200mA / I_B = -10mA

● Absolute maximum ratings (Ta=25°C)

Parameter	Sy	mbol	Limits	Unit
Collector-base voltage	١	/сво	-15	V
Collector-emitter voltage	١	/ceo	-12	V
Emitter-base voltage	١	/ево	-6	V
Collector current		lc	-500	mA
Collector current	I _{CP}		-1	Α *
Collector power dissipation		VMT3	150	mW
	Pc	EMT3	150	
		SMT3	200	
Junction temperature	Tj		150	°C
Storage temperature	Tstg		-55 to +150	°C

^{*}Single pulse, Pw=1ms

●External dimensions (Unit:mm)



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions	
Collector-base breakdown voltage	ВУсво	-15	-	-	V	Ic= -10μA	
Collector-emitter breakdown voltage	BVceo	-12	-	-	V	I _C = -1mA	
Emitter-base breakdown voltage	BV _{EBO}	-6	-	-	V	I _E = -10μA	
Collector cutoff current	Ісво	-	-	-100	nA	Vcb= -15V	
Emitter cutoff current	I _{EBO}	-	-	-100	nA	V _{EB} = -6V	
DC current transfer ratio	h _{FE}	270	-	680	-	V _{CE} = -2V / I _C = -10mA	
Collector-emitter saturation voltage	V _{CE} (sat)	_	-100	-250	mV	I _C = -200mA / I _B = -10mA	
Transition frequency	f⊤	-	260	-	MHz	V _{CE} = −2V, I _E =10mA, f _T =100MHz	
Output capacitance	Cob	-	6.5	_	pF	Vcb= -10V, Ie=0A, f=1MHz	



●Packaging specifications and hFE

		Package name		Taping	
Type		Code	T146	TL	T2L
	h _{FE}	Basic ordering unit (pieces)	3000	3000	8000
2SA2119K			0	-	-
2SA2018		-	0	-	
2SA2030			_	_	0

Electrical characteristic curves

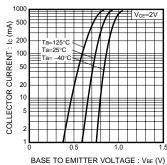


Fig.1 Grounded Emitter Propagation Characteristics

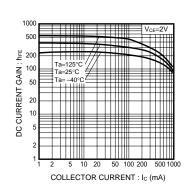


Fig.2 DC Current Gain vs. Collector Current

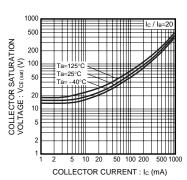


Fig.3 Collector-Emitter Saturation Voltage vs. Collector Current (I)

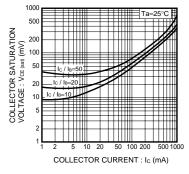


Fig.4 Collector-Emitter Saturation Voltage vs. Collector Current (II)

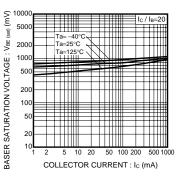


Fig.5 Base-Emitter Saturation Voltage vs.Collecter Current

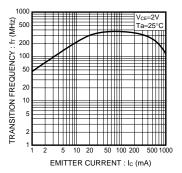


Fig.6 Gain Bandwidth Product vs. Emitter Current

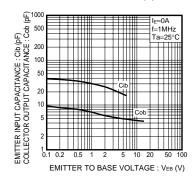


Fig.7 Collector Output Capacitance vs. Collector-Base Voltage Emitter Input Capacitance vs. Emitter-Base Voltage

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