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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Small Signal Product

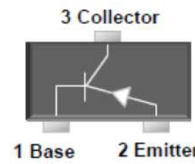
200mW, PNP Small Signal Transistor

FEATURES

- Epitaxial planar die construction
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- Pb free and RoHS complian
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

MECHANICAL DATA

- Case: SOT- 323 small outline plastic package
- Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed: 260°C/10s
- Weight: 0.005 grams (approximately)



SOT-323

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P _D	200	mW
Collector-Base Voltage	V _{CBO}	50	V
Collector-Emitter Voltage	V _{CEO}	45	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	0.5	A
Thermal Resistance, Junction to Ambient	R _{θJA}	625	K/W
Junction and Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C

Notes: 1. Transistor mounted on a FR4 printed-circuit board

PARAMETER	SYMBOL	MIN	MAX	UNIT
Collector-Base Breakdown Voltage at -I _C = 10 μA	V _{(BR)CBO}	50	-	V
Collector-Emitter Breakdown Voltage at -I _C = 10 mA	V _{(BR)CEO}	45	-	V
Emitter-Base Breakdown Voltage at -I _E = 10 μA	V _{(BR)EBO}	5	-	V
Collector Cut-off Current at V _{CB} = 20 V	I _{CBO}	-	100	nA
			5	μA
Emitter Cut-off Current at V _{EB} = 5 V	I _{EBO}	-	100	nA
Collector-Emitter Saturation Voltage at -I _C = 500mA I _B = 50 mA	V _{CE(sat)}	-	0.7	V
Transition Frequency V _{CE} = 5 V I _C = 10 mA f = 100MHz	f _T	80	-	MHz
DC Current Gain at -V _{CE} = 1 V , -I _C = 100 mA	h _{FE}	100	250	
		160	400	
		250	600	
		40		

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RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

Fig.1 Total Power Dissipation $P_{tot} = f(T_S)$

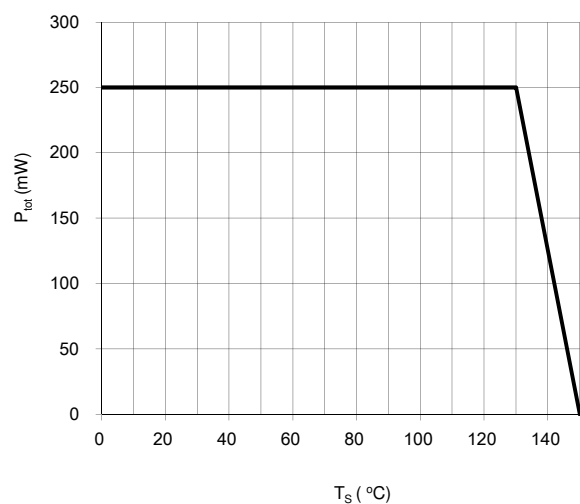


Fig.2 Permissible Pulse Load $R_{\theta JA} = f(tp)$

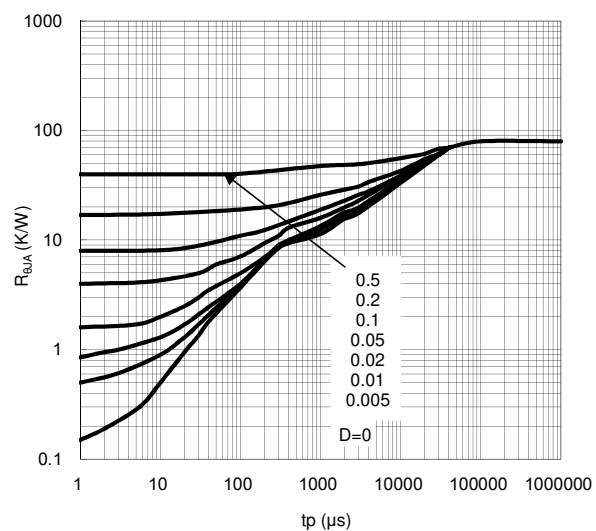


Fig.3 Permissible Pulse Load
 $P_{totmax} / P_{totDC} = f(tp)$

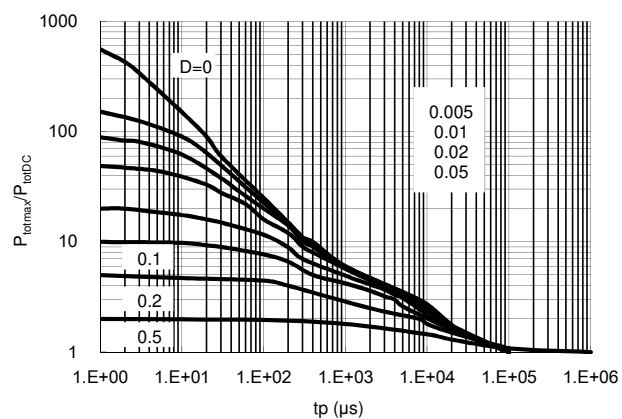
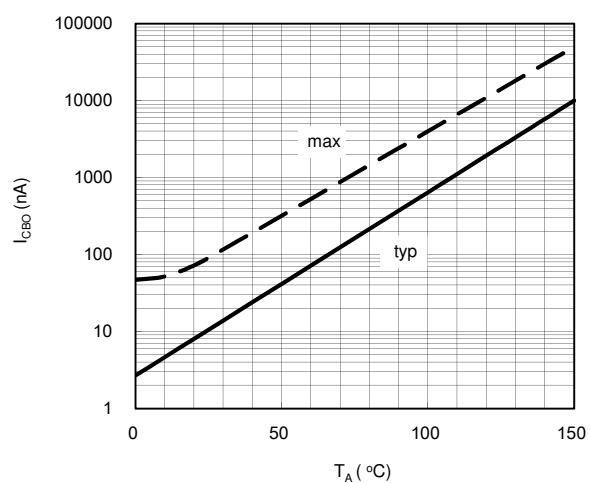


Fig. 4 Collector Cutoff Current $I_{CBO} = f(T_A)$
 $V_{CB}=25V$



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RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

Fig.5 DC Current Gain $h_{FE} = f(I_C)$
 $V_{CE} = 1V$

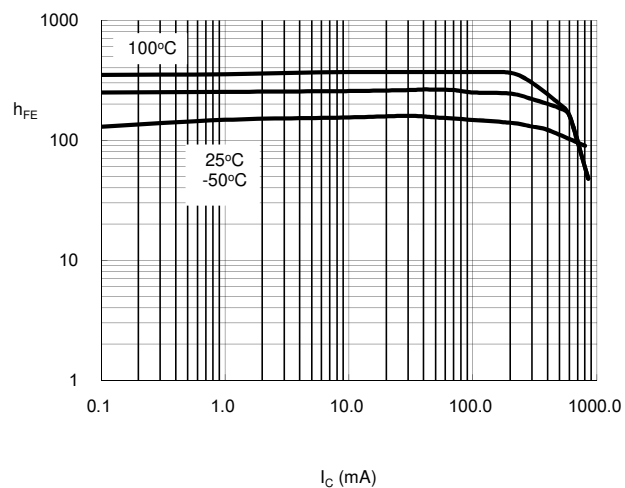


Fig. 6 Transition Frequency $f_T = f(I_C)$
 $V_{CE} = 5V$

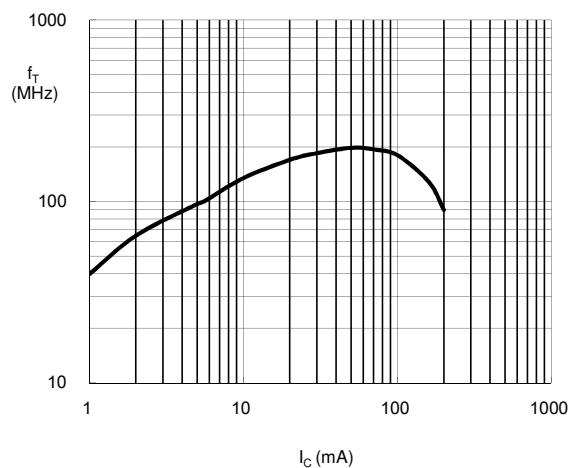


Fig. 7 Base-Emitter Saturation Voltage
 $I_C = f(V_{BEsat}), h_{FE} = 10$

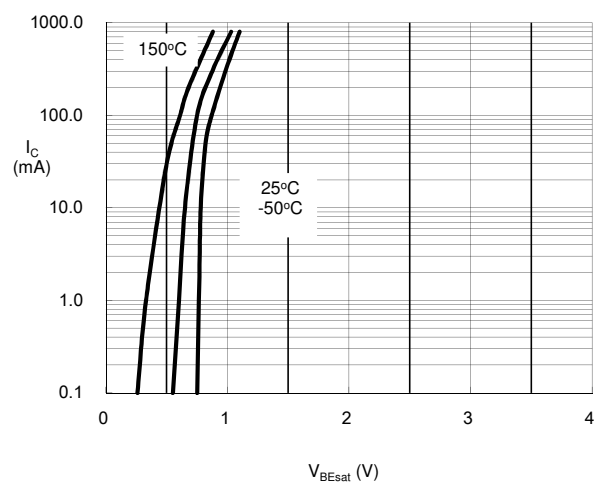
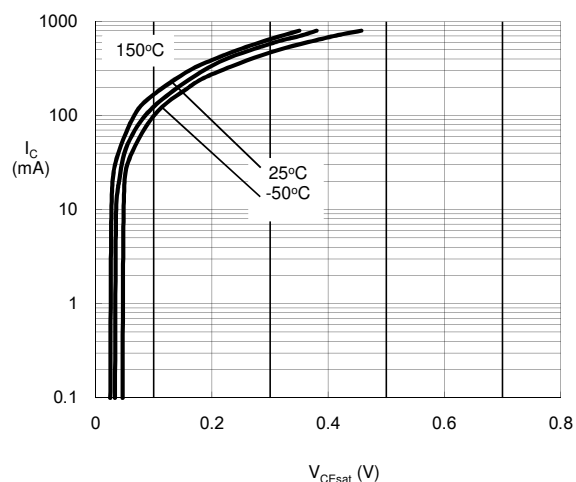


Fig. 8 Collector-Emitter Saturation Voltage
 $I_C = f(V_{CEsat}), h_{FE} = 10$



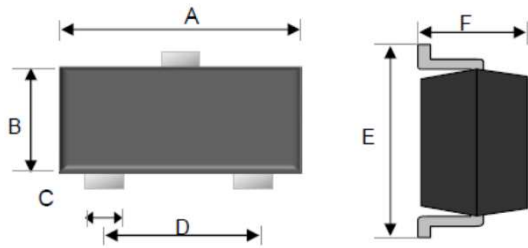
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ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BC807-16W	(Note)	RF	G	SOT-323	3K / 7" Reel	5CR
BC807-25W		RF	G	SOT-323	3K / 7" Reel	5CS
BC807-40W		RF	G	SOT-323	3K / 7" Reel	5CT

Note: Manufacture special control, if empty means no special control requirement.

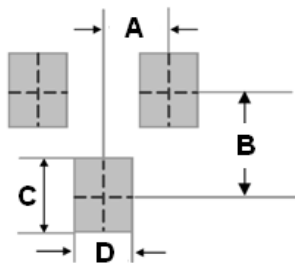
EXAMPLE					
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
BC807-16W RFG	BC807-16W		RF	G	Green compound
BC807-16W-B0 RFG	BC807-16W	B0	RF	G	Green compound

DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.80	2.20	0.07	0.09
B	1.15	1.35	0.05	0.05
C	0.15	0.40	0.01	0.02
D	1.20	1.40	0.05	0.06
E	2.00	2.45	0.08	0.10
F	0.80	1.10	0.03	0.04

SUGGEST PAD LAYOUT



DIM.	Unit(mm)	Unit(inch)
	Typ.	Typ.
A	0.65	0.026
B	1.6	0.063
C	0.8	0.031
D	0.8	0.031

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