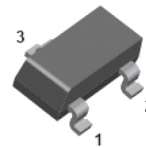
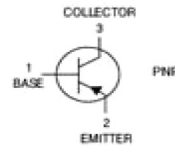
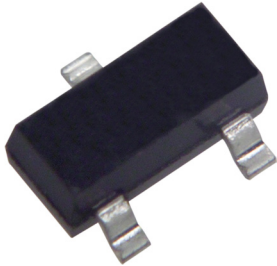


PNP General Purpose Amplifier **multicomp**PRO

RoHS
Compliant



SOT-23

Features:

- Ideally suited for automatic insertion.
- Complementary NPN type available BC817
- Epitaxial planar die construction.

Applications:

- This device is designed for general purpose amplifier and switching applications at currents to 1.0A.

Maximum Ratings: at 25°C unless otherwise specified.

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	
Emitter-Base Voltage	V_{EBO}	-5	
Collector Current -Continuous	I_C	-500	mA
Total Device Dissipation	P_D	300	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	T_j, T_{stg}	-55 to +150	°C

Electrical Characteristics Of TR1 NPN Transistor @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min.	Max.	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-45		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -1\mu\text{A}, I_C = 0$	-5		μV
Collector cut-off current	I_{CBO}	$V_{CB} = -45\text{V}, I_E = 0$		-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -40\text{V}, I_B = 0$		-0.2	
Emitter cut-off current	I_{EO}	$V_{CE} = -4\text{V}, I_C = 0$		-0.1	

PNP General Purpose Amplifier **multicomp**PRO

Parameter	Symbol	Test conditions	Min.	Max.	Unit
DC current gain	807-16 807-25 807-40 h_{FE}	$V_{CE} = -1V, I_C = -100mA$	100 160 250	250 400 600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$		-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA$		-1.2	
Output capacitance	Cobo	$V_{CB} = -10V, f = 1.0MHz$		10	pF
Transition frequency	f_T	$V_{CE} = -5V, I_C = -10mA, f = 100MHz$	100		MHz

Typical Characteristics: $T_A = 25^\circ C$ unless otherwise specified

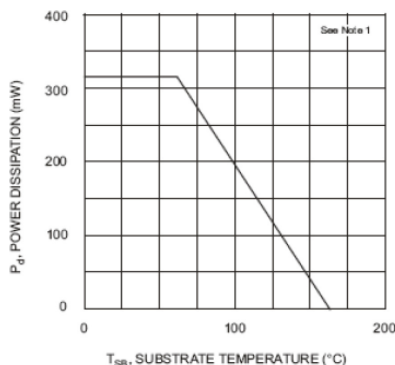


Fig. 1, Power Derating Curve

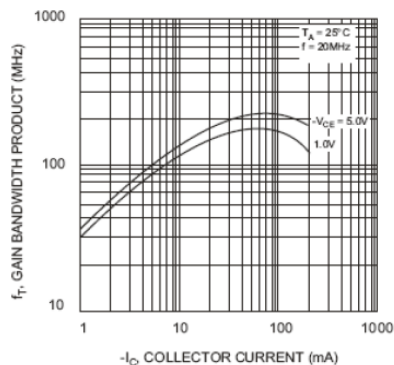


Fig. 2, Gain-Bandwidth Product vs Collector Current

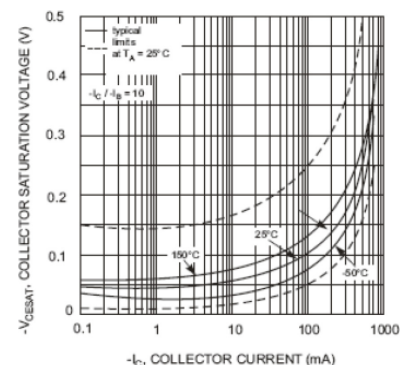


Fig. 3, Collector Sat. Voltage vs Collector Current

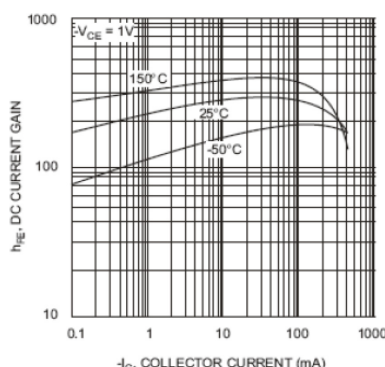


Fig. 4, DC Current Gain vs Collector Current

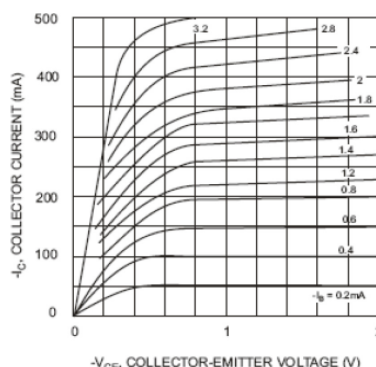


Fig. 5, Typical Emitter-Collector Characteristics

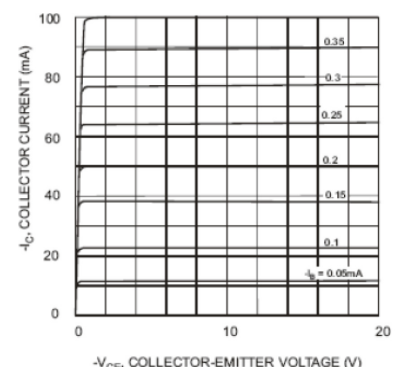
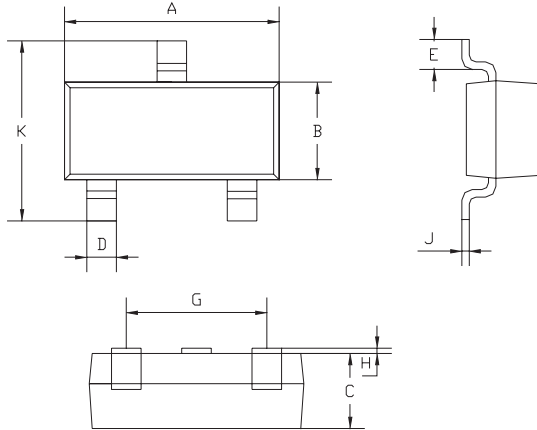


Fig. 6, Typical Emitter-Collector Characteristics

PNP General Purpose Amplifier **multicomp**PRO

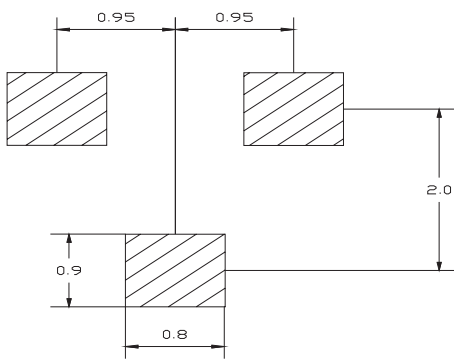
Package Outline:

Plastic surface mounted package



SOT-23		
Dim.	Min.	Max.
A	2.85	2.95
B	1.25	1.35
C	1.0 Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typ.	
K	2.35	2.45

Soldering Footprint



Marking Code

BC807-25-7-F	5B
BC807-40-7-F	5C

Part Number Table

Description	Part Number
Transistor, PNP, 45V, 0.5A, SOT-23	BC807-25-7-F
	BC807-40-7-F

Dimensions : Millimetres

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