



BC807-16~BC807-40

PNP GENERAL PURPOSE TRANSISTORS

VOLTAGE 45 Volt **POWER** 330 mWatt

SOT-23 Unit : inch(mm)

FEATURES

- General purpose amplifier applications
- PNP epitaxial silicon, planar design
- Collector current $I_c = 500\text{mA}$
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Apporx. Weight: 0.0003 ounce, 0.0084 gram
- Device Marking : BC807-16 : 7A
BC807-25 : 7B
BC807-40 : 7C

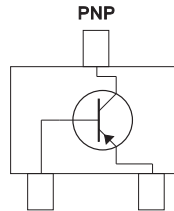
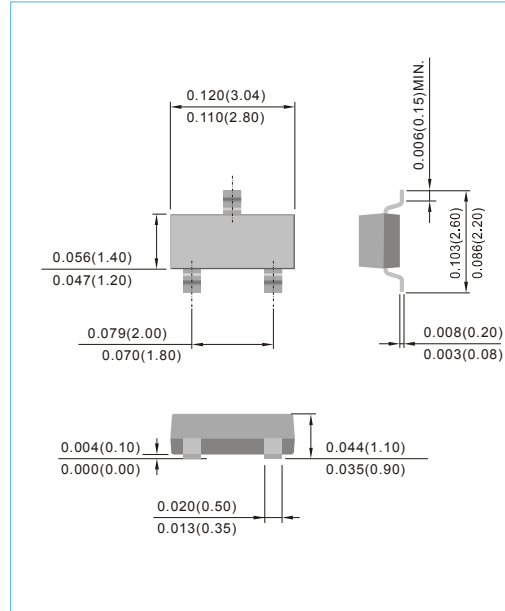


Fig.35



MECHANICAL DATA

PARAMETER	SYMBOL	Value	UNIT
Collector-Emitter Voltage	V_{CEO}	-45	V
Collector-Base Voltage	V_{CBO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_c	-500	mA
Peak Collector Current	I_{CM}	-1000	mA
Total Power Dissipation (Note 1)	P_{TOT}	330	mW
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	°C

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	Value	UNIT
Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	375	°C/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	220	°C/W

NOTES : 1. Transistor mounted on FR-5 board minimum pad mounting conditions.

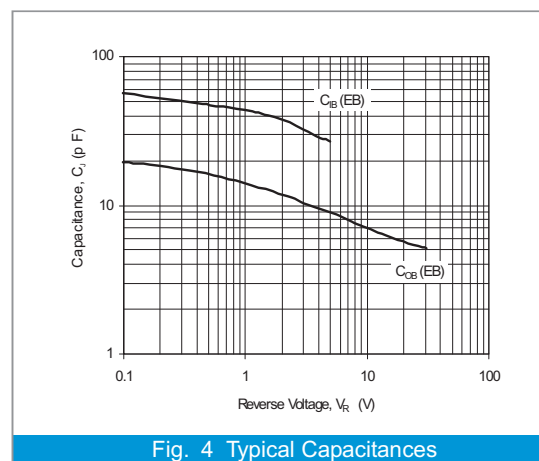
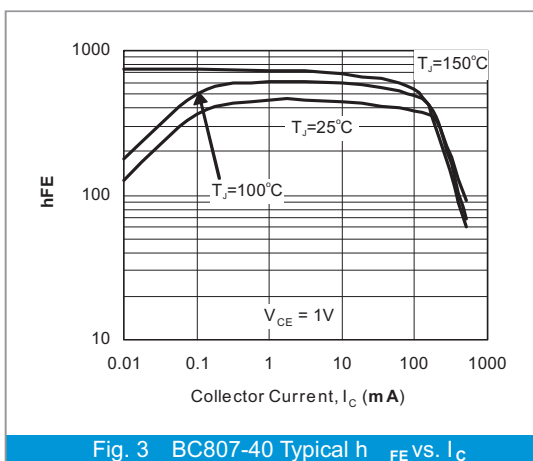
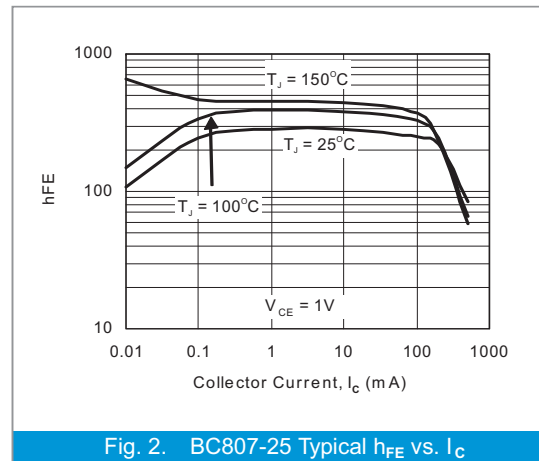
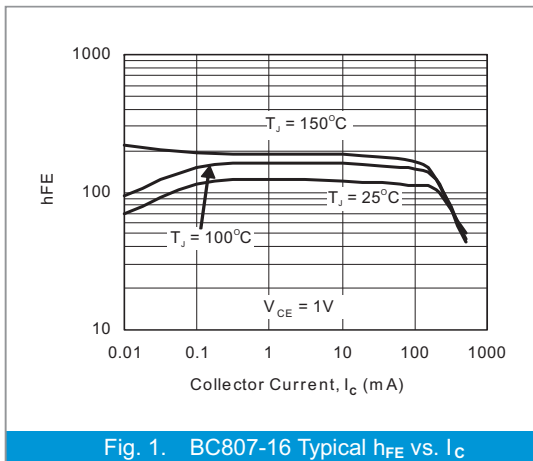


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ELECTRICAL CHARACTERISTICS(T_J=25°C,unless otherwise notes)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Collector-Emitter Breakdown Voltage (I _C =-10mA, I _E =0)	V _{(BR)CEO}	-45	-	-	V	
Collector-Base Breakdown Voltage (V _{EB} =0V, I _C =-10μA)	V _{(BR)CBO}	-50	-	-	V	
Emitter-Base Breakdown Voltage (I _E =-1μA, I _C =0)	V _{(BR)EBO}	-5.0	-	-	V	
Emitter-Base Cutoff Current (V _{EB} =-5V)	I _{EBO}	-	-	-100	nA	
Collector-Base Cutoff Current (V _{CB} =-20V, I _E =0)	I _{CBO}	T _J =25°C	-	-100	nA	
		T _J =150°C	-	-5.0	μA	
DC Current Gain (I _C =-100mA, V _{CE} =-1V)	h _{FE}	BC807-16	100	-	250	-
		BC807-25	160	-	400	-
		BC807-40	250	-	600	-
(I _C =-500mA, V _{CE} =-1V)		40	-	-	-	
Collector-Emitter Saturation Voltage (I _C =-500mA, I _E =-50mA)	V _{CE(SAT)}	-	-	-0.7	V	
Base-Emitter Voltage (I _C =-500mA, V _{CE} =-1.0V)	V _{BE(ON)}	-	-	-1.2	V	
Collector-Base Capacitance (V _{CB} =-10V, I _E =0, f=1MHz)	C _{CBO}	-	7.0	-	pF	
Current Gain-Bandwidth Product (I _C =-10mA, V _{CE} =-5V, f=100MHz)	f _T	100	-	-	MHz	

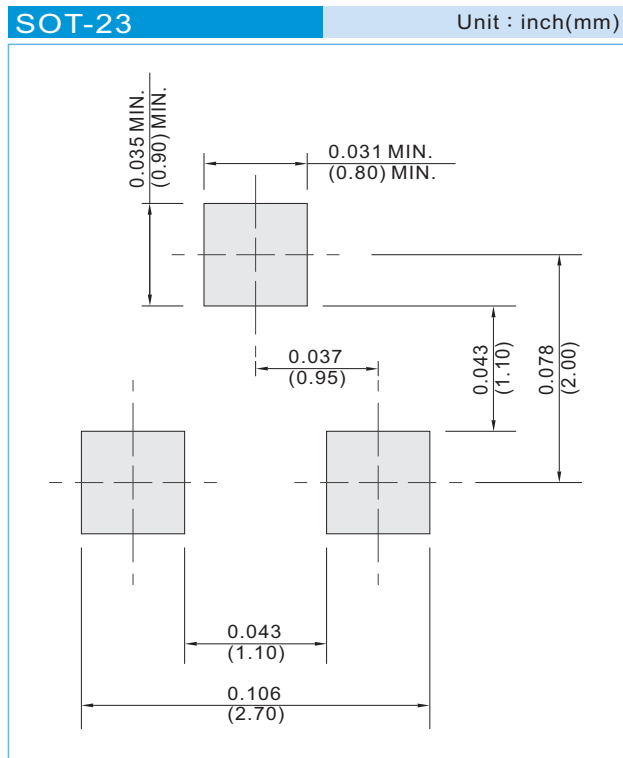
ELECTRICAL CHARACTERISTICS





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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

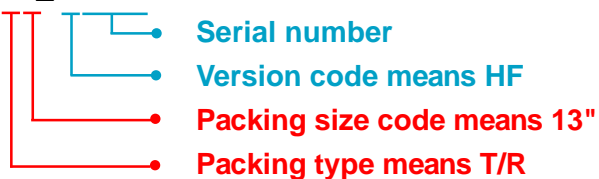
BC807-16_R1_00001

BC807-16_R2_00001

For example :

RB500V-40_R2_00001

Part No.



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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