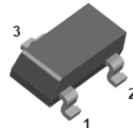
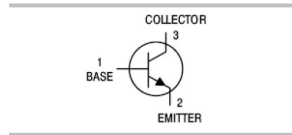
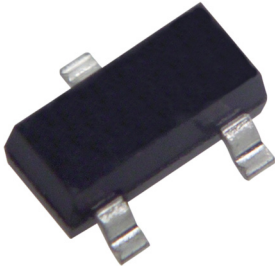


NPN General Purpose Amplifier **multicomp**PRO

RoHS
Compliant



SOT-23

Features:

- High current gain.
- Excellent h_{FE} linearity .
- Low noise between 30Hz and 15kHz.
- For AF input stages and driver applications.

Applications:

- General purpose switching and amplification.

Maximum Ratings: at 25°C unless otherwise specified.

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	65	
Emitter-Base Voltage	V_{EBO}	6	
Collector Current -Continuous	I_C	0.1	A
Collector Dissipation	P_C	200	mW
Junction and Storage Temperature	T_j, T_{stg}	-65 to +150	°C

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

Parameter	Symbol	Test conditions	Min.	Max.	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	80		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	65		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 1\mu\text{A}, I_C = 0$	6		
Collector cut-off current	I_{CBO}	$V_{CB} = 45\text{V}, I_E = 0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$			

NPN General Purpose Amplifier **multicomp**PRO

Parameter	Symbol	Test conditions	Min.	Max.	Unit
DC current gain	h_{FE}	$V_{CE} = 5V, I_C = 2mA$	110	220	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 5mA$		0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100mA, I_B = 5mA$		1.1	
Transition frequency	f_T	$V_{CE} = 5V, I_C = 10mA, f = 100MHz$	100		MHz

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

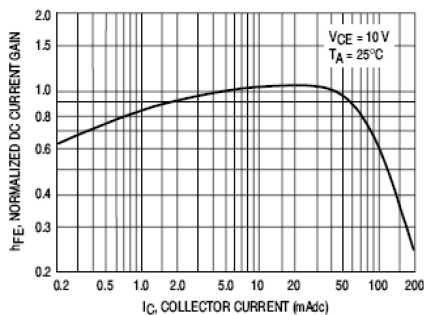


Figure 1. Normalized DC Current Gain

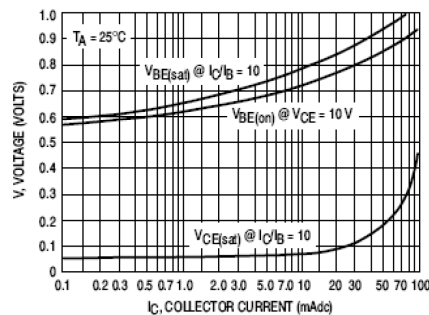


Figure 2. "Saturation" and "On" Voltages

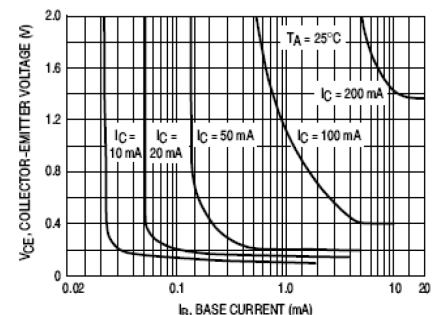


Figure 3. Collector Saturation Region

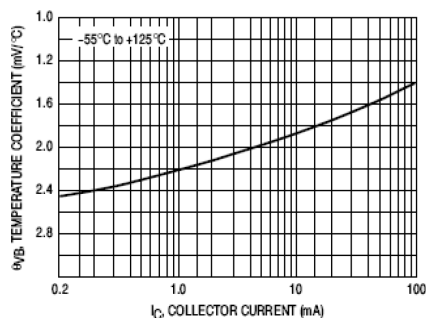


Figure 4. Base-Emitter Temperature Coefficient

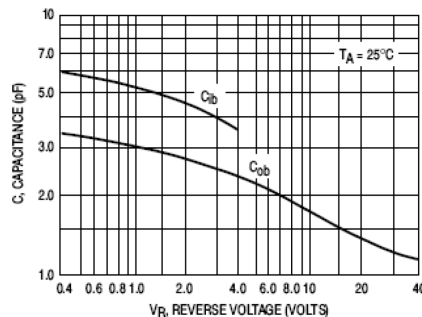


Figure 5. Capacitances

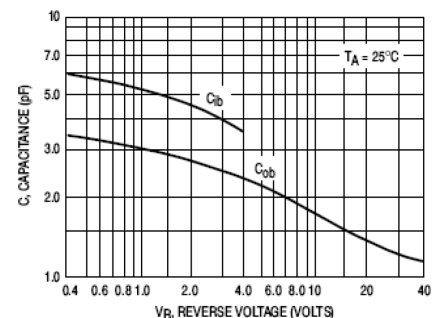
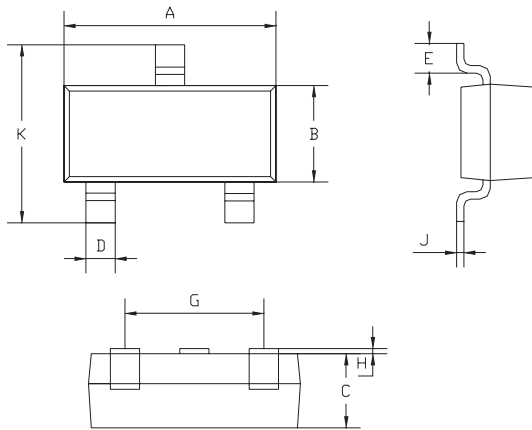


Figure 5. Capacitances

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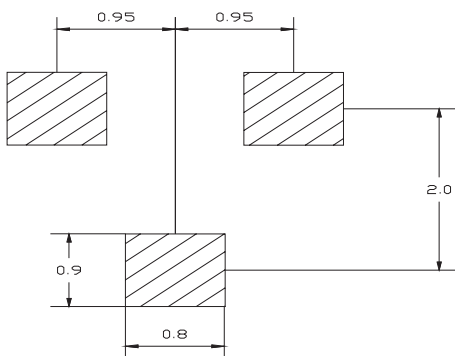
Package Outline:

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 Typical	
K	2.35	2.45

Soldering Footprint



Part Number Table

Description	Part Number
Transistor, NPN, 65V, 100mA, SOT23	BC846B-7-F
	BC847A-7-F

Dimensions : Millimetres

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