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NPN Plastic-Encapsulate Transistors

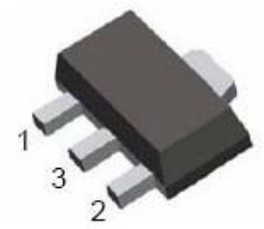
Features

- Low Collector-Emitter Saturation Voltage
- High Breakdown Voltage
- RoHS compliant package

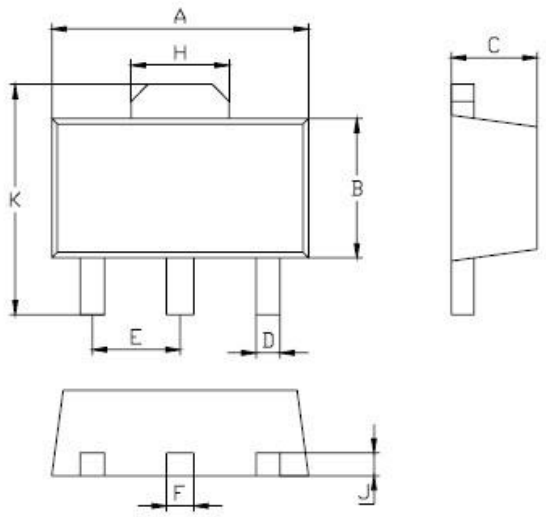
Case：SOT-89

Packing & Order Information

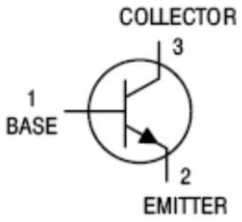
2,500/Reel

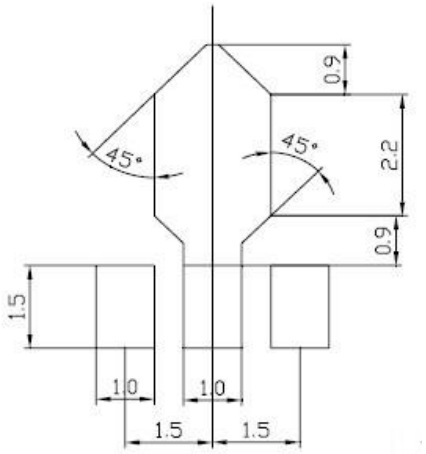


RoHS
COMPLIANT



Graphic symbol





SOT-89		
Dim	Min	Max
A	4.5	4.7
B	2.3	2.7
C	1.5Typical	
D	0.35	0.55
E	1.4	1.6
F	0.4	0.6
H	1.55	1.75
J	0.4Typical	
K	4.15	4.25
All Dimensions in mm		

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute maximum ratings (Ta=25°C)			
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	310	V
V_{CEO}	Collector-Emitter Voltage	305	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	200	mA
I_{CM}	Collector Current - Pulsed	500	mA
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250	°C/W
Tj	Junction Temperature	150	°C
Tstg	Storage Temperature	-55 to +150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified						
Symbol	Parameter	Test Conditions	MIN	TYP	MAX	UNIT
BV_{CBO}	Collector-base breakdown voltage	I_C = 100μA , I_E = 0	310			V
BV_{CEO}	Collector-emitter breakdown voltage	I_C = 1 mA , I_B = 0	305			V
BV_{EBO}	Emitter-base breakdown voltage	I_E = 100μA , I_C = 0	5			V
I_{CBO}	Collector cut-off current	V_{CB} = 200 V , I_E = 0			0.25	μA
I_{CEO}	Collector cut-off current	V_{CB} = 300 V , I_B = 0			0.25	μA
		V_{CB} = 300 V , I_B = 0			5	μA
I_{EBO}	Emitter cut-off current	V_{EB} = 5 V , I_C = 0			0.1	μA
$h_{FE(1)}$	DC current gain	V_{CE} = 10 V , I_C = 1 mA	60			
$h_{FE(2)}$		V_{CE} = 10 V , I_C = 10 mA	100		300	
$h_{FE(3)}$		V_{CE} = 10 V , I_C = 30 mA	75			
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C = 20 mA , I_B = 2 mA			0.2	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C = 20 mA , I_B = 2 mA			0.9	V
f_T	Transition frequency	V_{CE} = 20 V , I_E = 10 mA f = 30MHz	50			MHz

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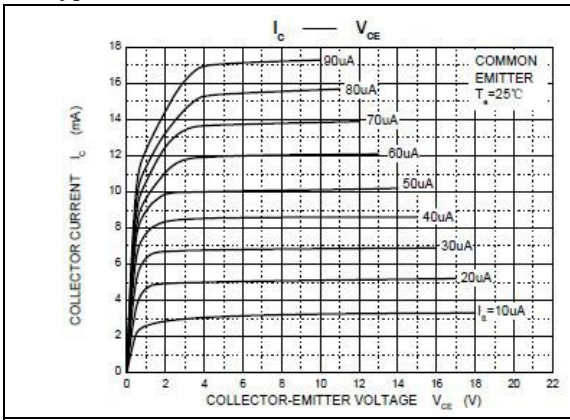
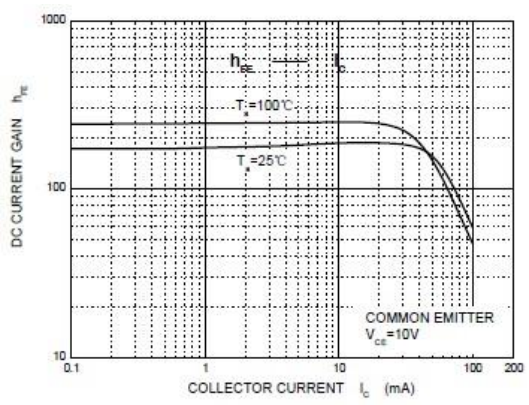
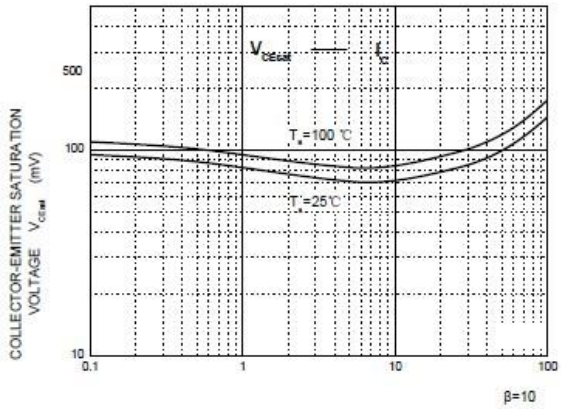
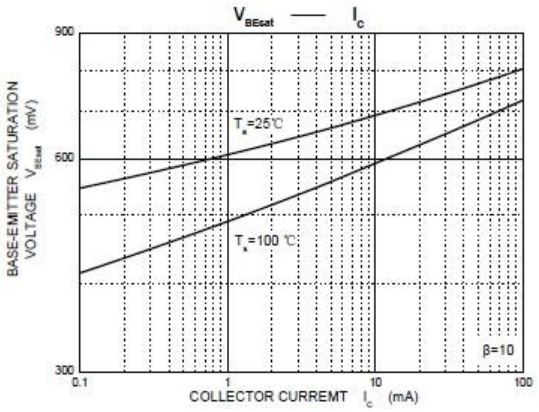
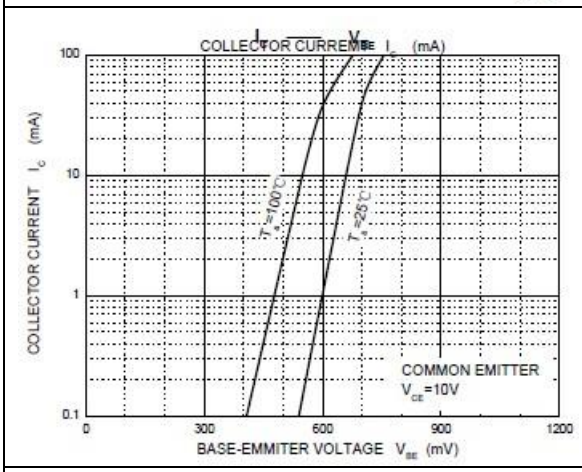
■Typical Characteristics

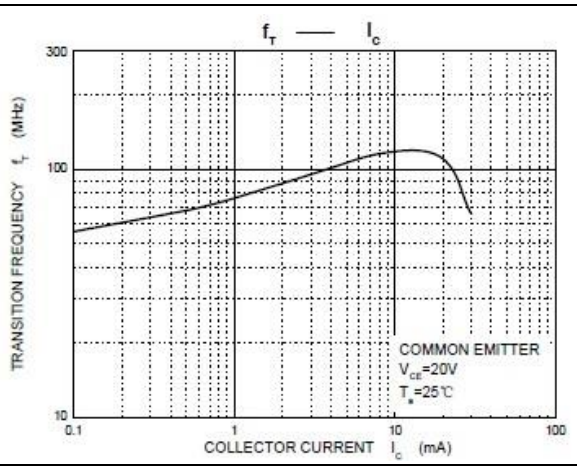


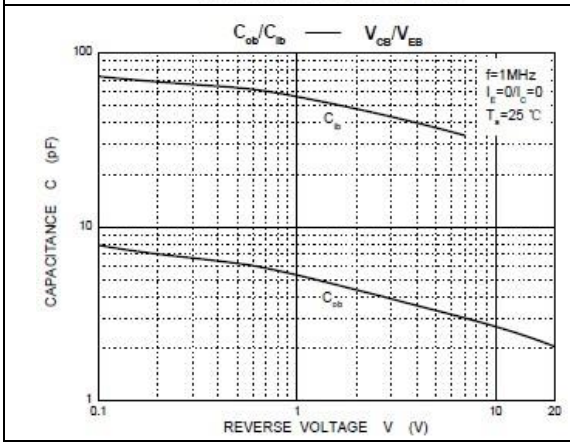


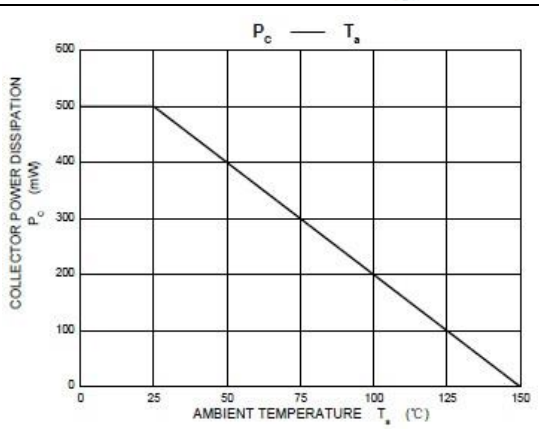












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