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NPN Plastic-Encapsulate Transistors

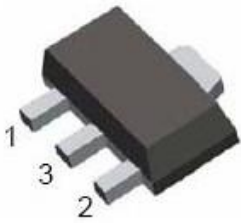
Features

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

Case : SOT-89

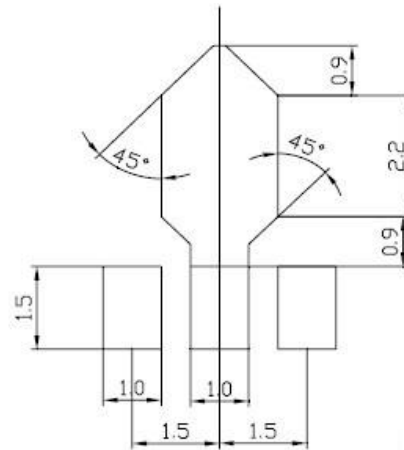
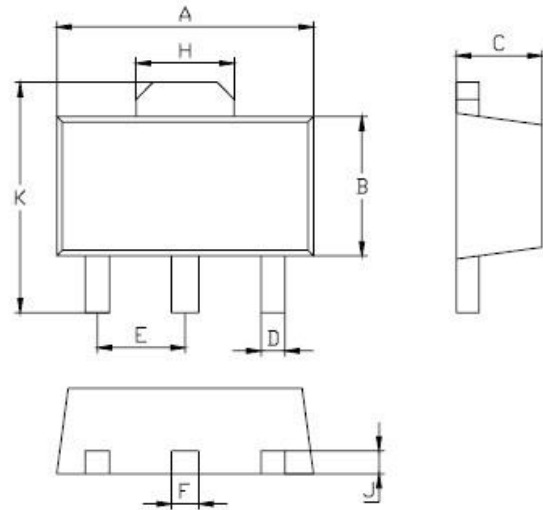
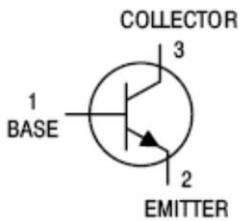
Packing & Order Information

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

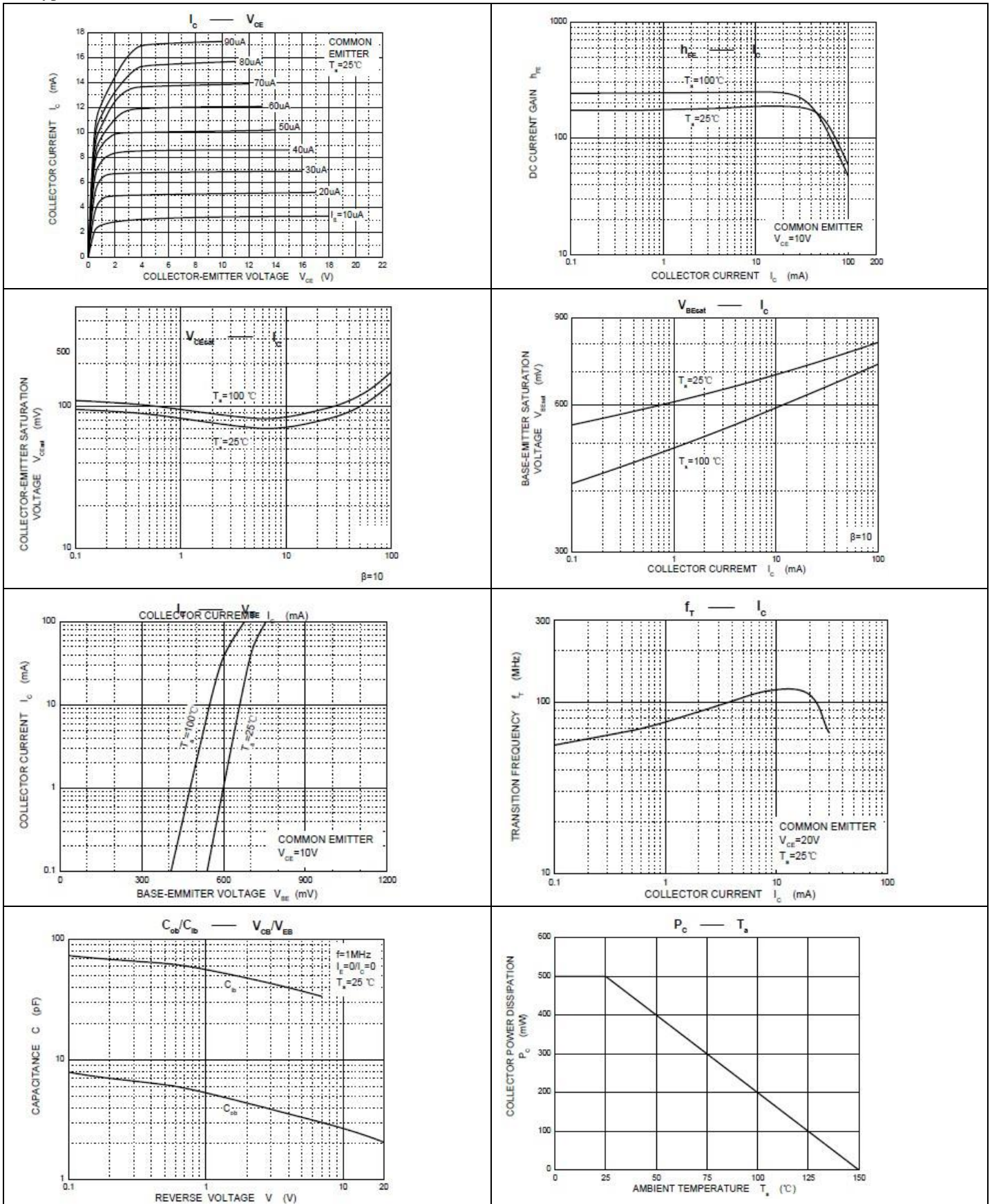
Absolute maximum ratings (Ta=25°C)

Symbol	Parameter	Value	Unit
V _{CB0}	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 _{θJA}	Thermal Resistance from Junction to Ambient	250	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55 to +150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	MIN	TYP	MAX	UNIT
BV _{CB0}	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

Typical Characteristics



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