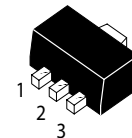


Epitaxial Planar PNP Transistors
 **Lead(Pb)-Free**
SOT-89

1. BASE
2. COLLECTOR
3. EMITTER

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Rating	Symbol	Limits	Unit
Collector-Base Voltage	VCBO	-40	Vdc
Collector-Emitter Voltage	VCEO	-32	Vdc
Emitter-Base Voltage	VEBO	-5	Vdc
Collector Current	IC	-2	A(DC)
	ICP	-3	A (Pulse)*
Collector Power Dissipation	PC	0.5	W
Junction Temperature, Storage Temperature	Tj, Tstg	150, -55 to +150	°C

* Single pulse Pw = 100ms

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage (Ic=-50uA)	BVCBO	-40	-	-	V
Collector-Emitter Breakdown Voltage (Ic=-1mA)	BVCEO	-32	-	-	V
Emitter-Base Breakdown Voltage (IE=-50uA)	BVEBO	-5	-	-	V
Collector Cutoff Current (VCB=-20)	ICBO	-	-	-1	uA
Emitter Cutoff Current (VEB=-4V)	IEBO	-	-	-1	uA

2SB1188

 **WEITRON****ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise noted) (Continued)**

Parameter	Symbol	Min	Typ	Max	Unit
DC Current Gain ($V_{CE}=-3V, I_C=-0.5A$)	h_{FE}	82	-	390	-
Collector-Emitter Saturation Voltage ($I_C=-2A, I_B=-0.2A$)	$V_{CE(sat)}$	-	-	-0.8	V
Transition Frequency ($V_{CE}=-5V, I_C=0.5A, f=30MHz$)	f_T	80	-	-	MHz
Output Capacitance ($V_{CB}=-10V, I_E=0A, f=1MHz$)	Cob	-	-	65	pF

CLASSIFICATION OF h_{FE}

Marking	BCP	BCQ	BCR
Rank	P	Q	R
Range	82-180	120-270	180-390

ELECTRICAL CHARACTERISTIC CURVES

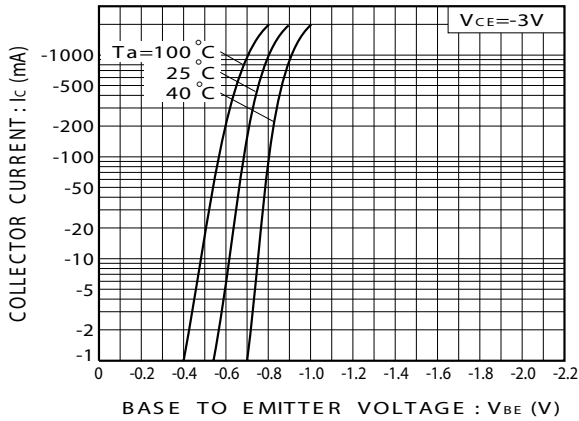


FIG. 1 Grounded emitter propagation characteristics

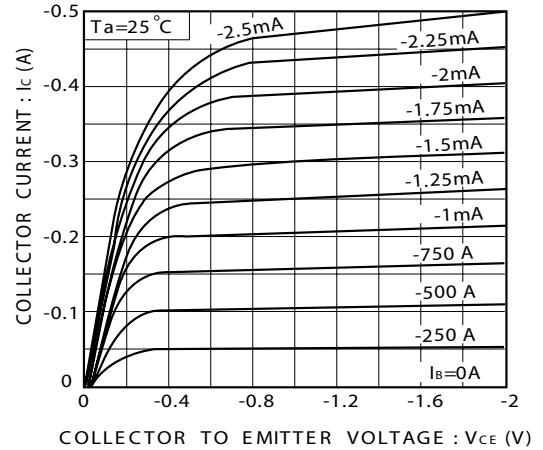


FIG. 2 Grounded emitter output characteristics

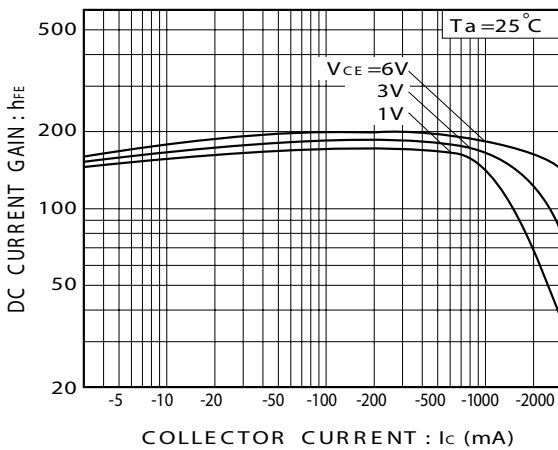


FIG. 3 DC current gain vs. collector current

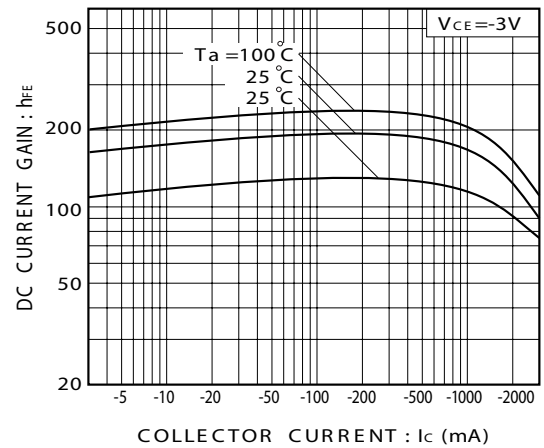


FIG. 4 DC current gain vs. collector current

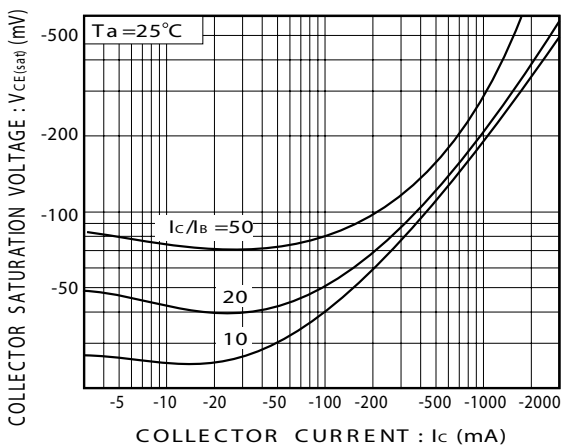


FIG. 5 Collector-emitter saturation voltage vs. collector current

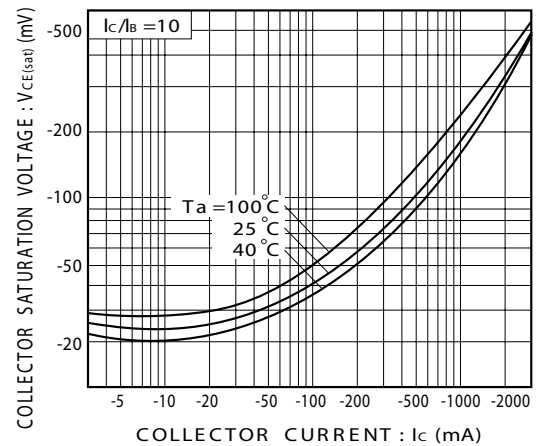


FIG. 6 Collector-emitter saturation voltage vs. collector current

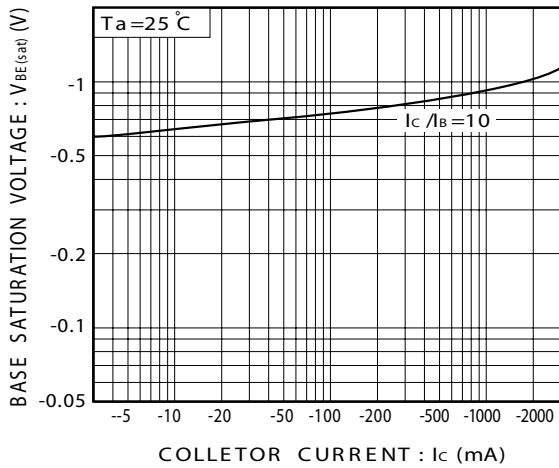


FIG.7 Base-emitter saturation voltage vs. collector current

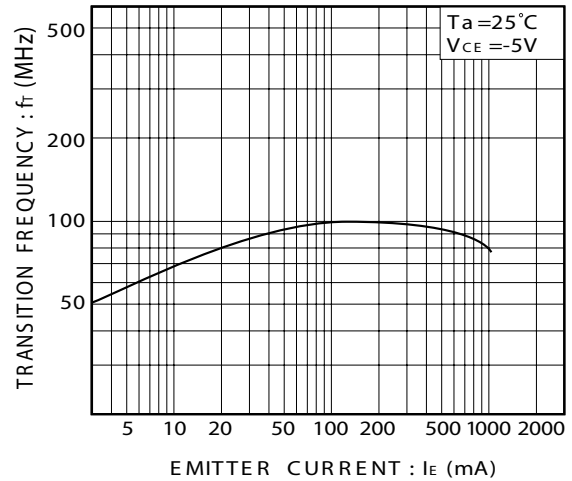


FIG.8 Gain bandwidth product vs. emitter current

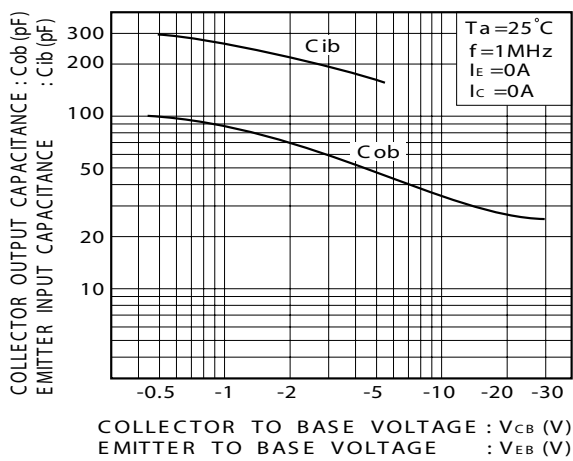


FIG.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

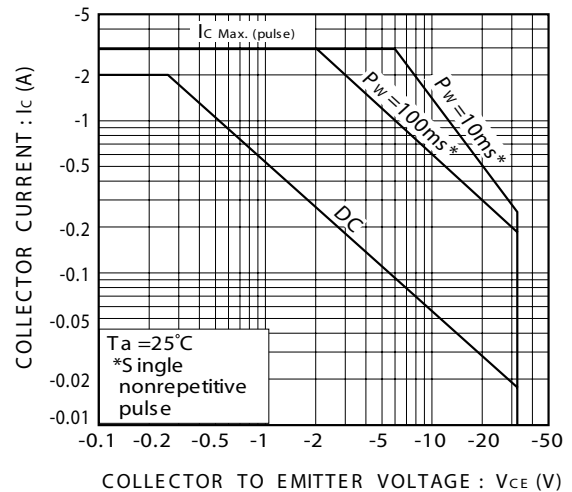
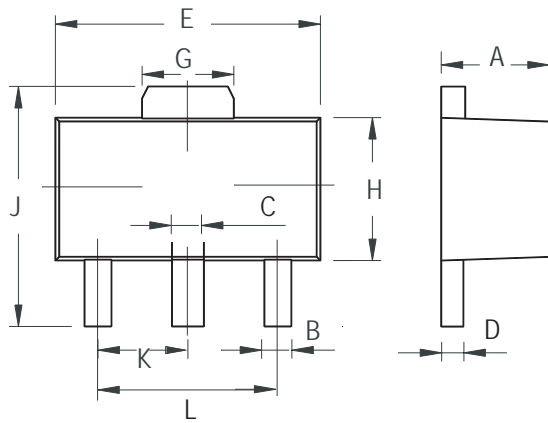


FIG.10 Safe operation area

SOT-89 Outline Dimensions

unit:mm



SOT-89		
Dim	Min	Max
A	1.400	1.600
B	0.320	0.520
C	0.360	0.560
D	0.350	0.440
E	4.400	4.600
G	1.400	1.800
H	2.300	2.600
J	3.940	4.250
K	1.500TYP	
L	2.900	3.100