

■ Features

- High voltage: $V_{CE0}=160V$
- Large continuous collector current capability
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish


SOT-89

PIN1 : Base
 PIN 2 : Collector
 PIN 3 : Emitter

■ Absolute Maximum Ratings $T_a = 25^{\circ}C$

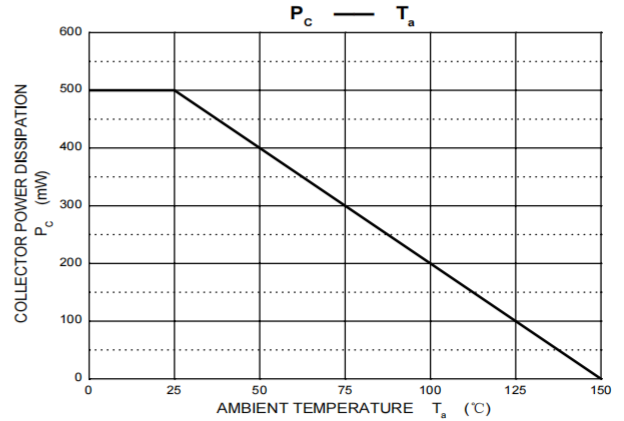
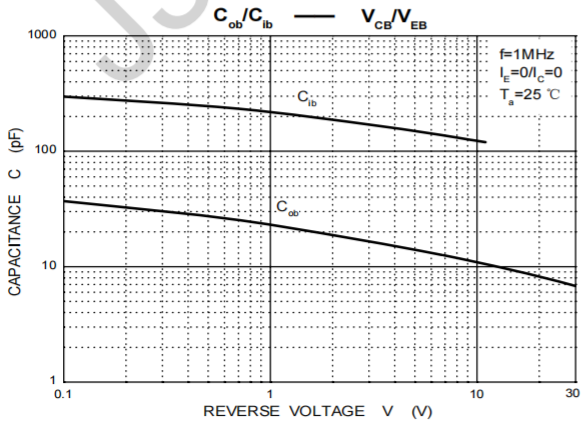
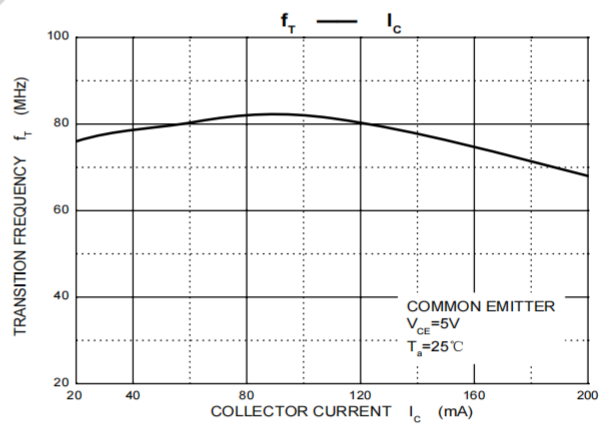
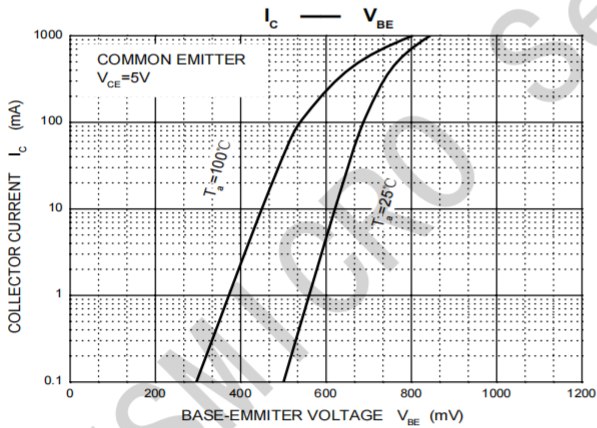
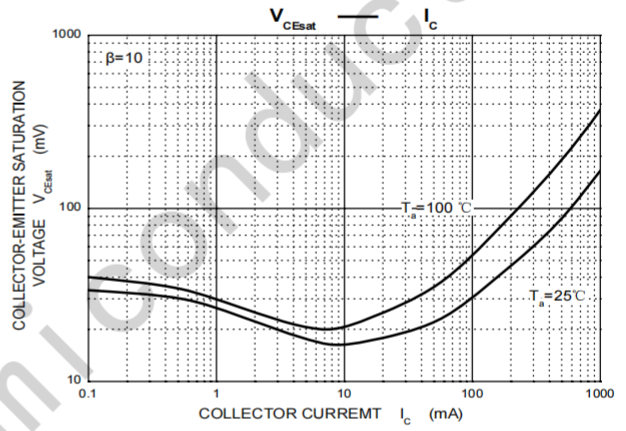
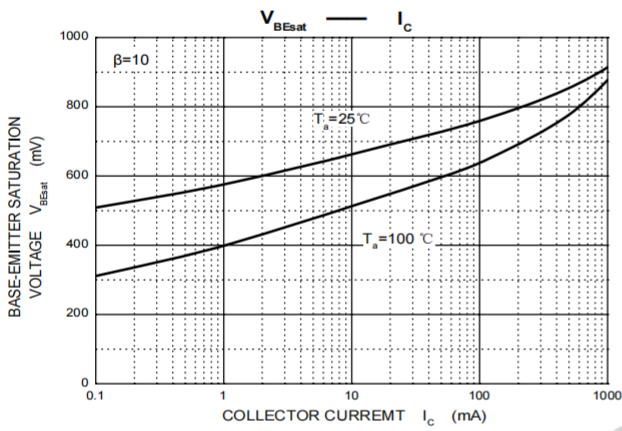
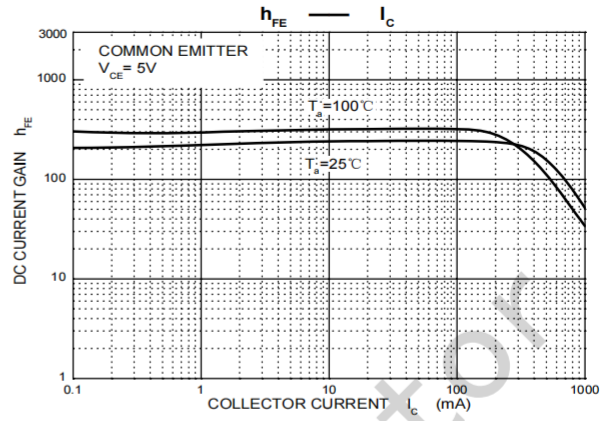
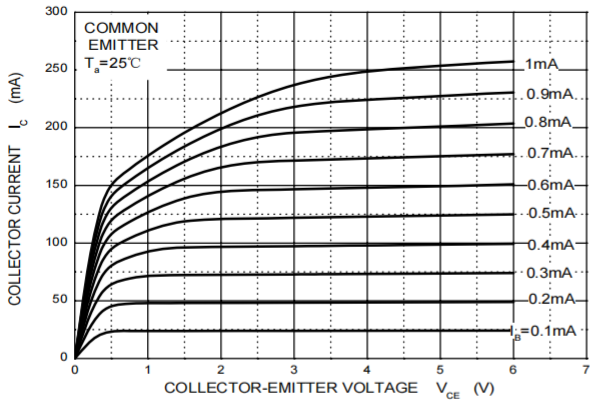
Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	160	V
Collector - Emitter Voltage	V_{CEO}	160	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_c	1	A
Collector Power Dissipation	P_c	0.5	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^{\circ}C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_c = 100 \mu A, I_E = 0$	160			V
Collector- emitter breakdown voltage	V_{CEO}	$I_c = 10 mA, I_B = 0$	160			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_c = 0$	6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 150 V, I_E = 0$			1	uA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6V, I_c = 0$			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 500 mA, I_B = 50mA$			1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 500 mA, I_B = 50mA$			1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = 5V, I_c = 5mA$	0.45		0.75	
DC current gain	h_{FE}	$V_{CE} = 6V, I_c = 200mA$	100		320	
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$			20	pF
Transition frequency	f_T	$V_{CE} = 5V, I_c = 200mA$	20			MHz

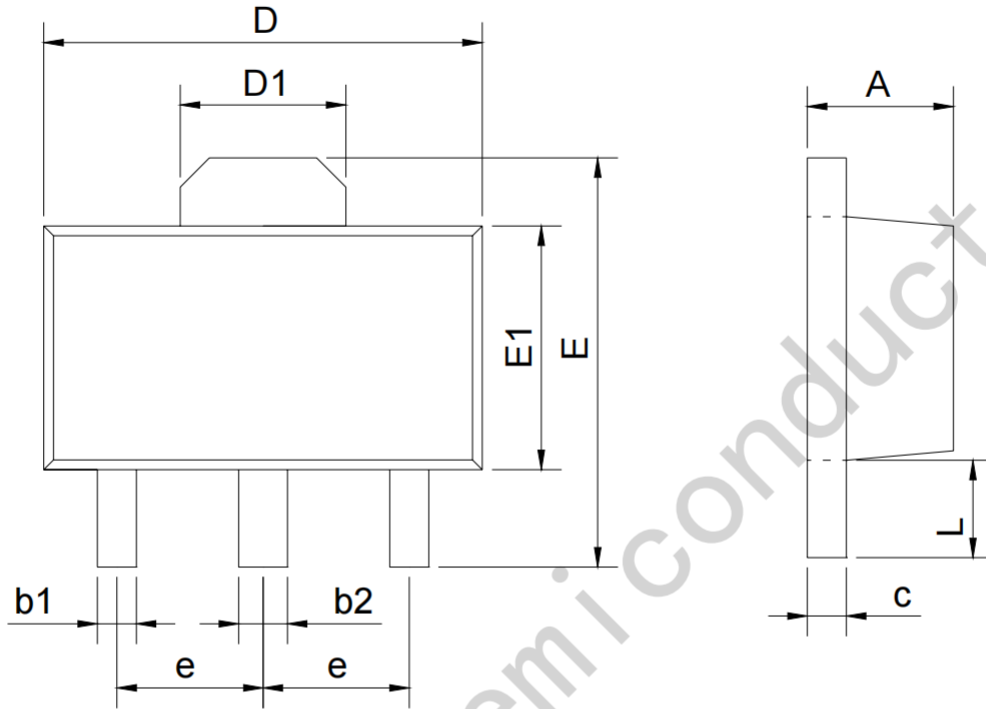
■ Typical Characteristics

Static Characteristic



Package Information

SOT-89



SYMBOL	mm	
	min	max
A	1.40	1.60
b1	0.35	0.50
b2	0.45	0.60
c	0.36	0.46
D	4.30	4.70
D1	1.40	1.80
E	4.00	4.40
E1	2.30	2.70
e	1.50BSC	
L	0.80	1.20

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