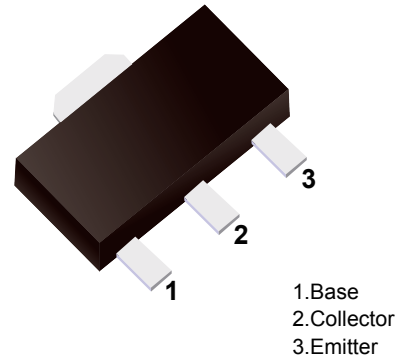


■ Surface Mount PNP Silicon Transistor

■ Features

- High current (max. 500mA).
- Low voltage (max. 150 V).



■ Simplified outline(SOT-89)

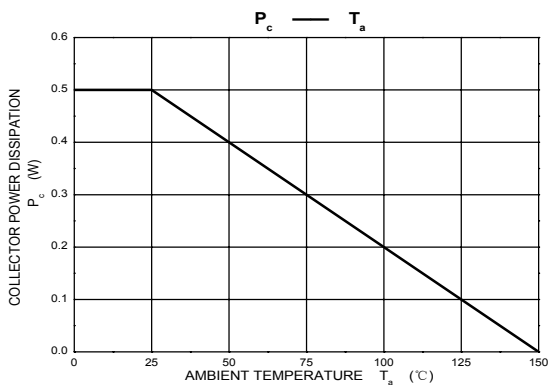
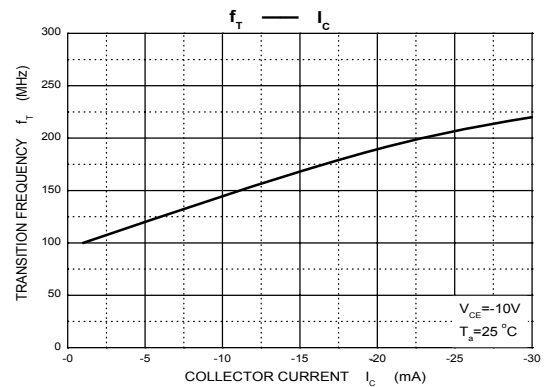
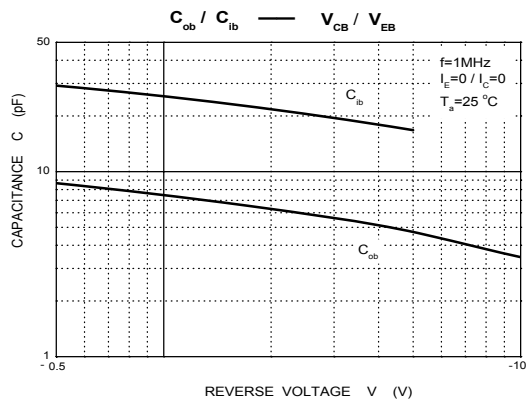
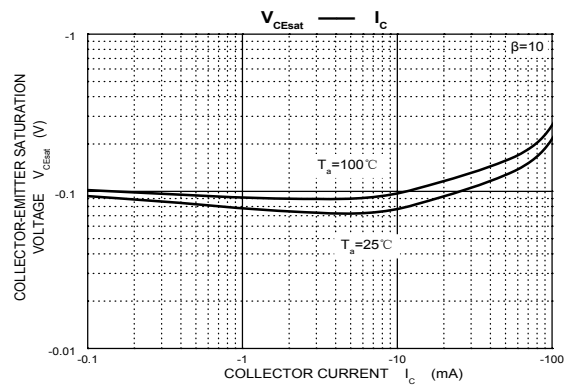
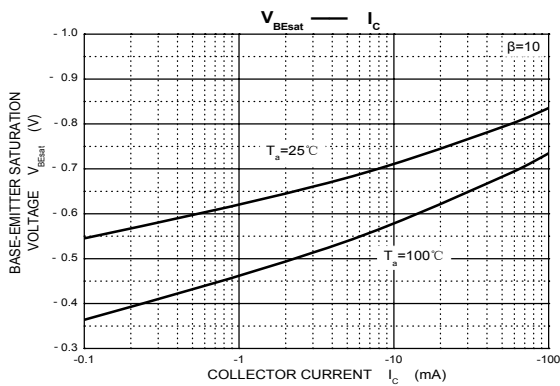
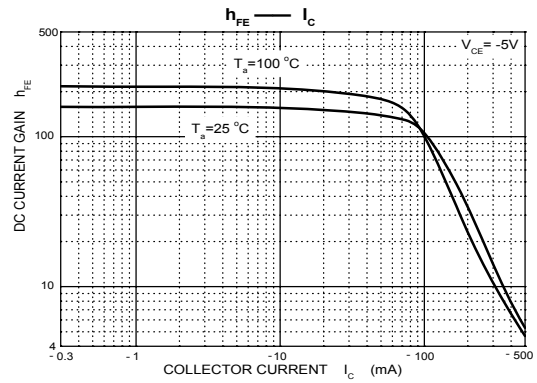
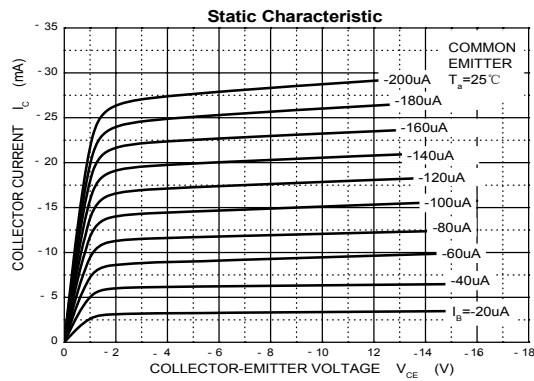
■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	-160	V
Collector-emitter voltage	V <sub>CEO</sub>	-150	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current (DC)	I <sub>c</sub>	-500	mA
power dissipation	P <sub>D</sub>	1.2	W
thermal resistance Junction- to-ambient	R <sub>θJA</sub>	104	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65 to +150	°C

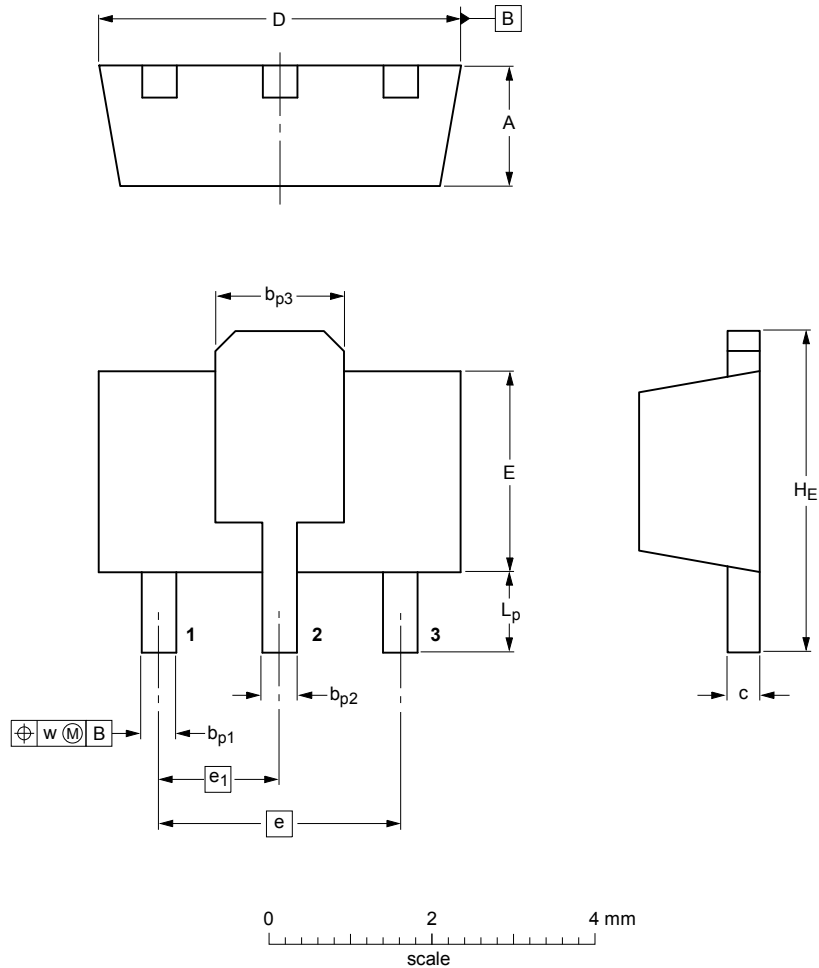
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector to base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> =-100 μ A	-160			V
Collector to emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> =-1.0mA	-150			V
Emitter to base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> =-10 μ A	-5.0			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> =- 120 V, I <sub>E</sub> = 0			-50	nA
		V <sub>CB</sub> =- 120 V, T <sub>A</sub> =100°C			-50	μ A
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = -1.0 mA; V <sub>CE</sub> = -5.0 V	50			
		I <sub>C</sub> = -10mA; V <sub>CE</sub> =- 5.0V	60		240	
		I <sub>C</sub> = -50 mA; V <sub>CE</sub> = -5.0V	50			
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =- 10 mA; I <sub>B</sub> = -1.0mA			-0.2	V
		I <sub>C</sub> = -50 mA; I <sub>B</sub> = -5.0mA			-0.5	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -10 mA; I <sub>B</sub> = -1.0mA			-1.0	V
		I <sub>C</sub> = -50 mA; I <sub>B</sub> = -5.0mA			-1.0	V
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10 V, I <sub>E</sub> = 0, f=1.0MHz			6.0	pF
Transition frequency	f <sub>T</sub>	I <sub>C</sub> = -10 mA; V <sub>CE</sub> =-10V; f = 100 MHz	100		300	MHZ

■ Typical Characteristics



**Package Outline SOT-89**



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	$b_{p1}$	$b_{p2}$	$b_{p3}$	c	D	E	e	$e_1$	$H_E$	$L_p$	w
mm	1.6 1.4	0.48 0.35	0.53 0.40	1.8 1.4	0.44 0.23	4.6 4.4	2.6 2.4	3.0	1.5	4.25 3.75	1.2 0.8	0.13

**Summary of Packing Options**

Package	Package Description	Packing Quantity	Industry Standard
SOT-89	Tape/Reel, 7" reel	1000	EIA-481-1