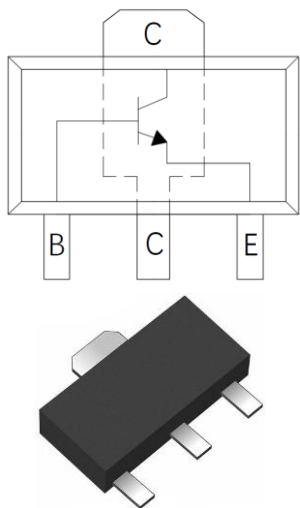


Hight Voltage NPN Transistor

SOT-89



Features

- Moisture sensitivity level 1
- Halogen free and RoHS compliant
- Surface mount package ideally suited for automatic insertion

Application

- Signal amplification
- Switching circuit

Mechanical data

- **Package:** SOT-89
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Device marking code				XTA44
Collector-base voltage	V_{CBO}	V	$I_C=100\mu\text{A}$, $I_E=0$	400
Collector-emitter voltage	V_{CEO}	V	$I_C=1\text{mA}$, $I_B=0$	400
Emitter-base voltage	V_{EBO}	V	$I_E=100\mu\text{A}$, $I_C=0$	6
Collector current	I_C	mA		300
Power dissipation	P_D	W		0.5
Operation junction temperature	T_J	$^{\circ}\text{C}$		-55 to +150
Storage temperature	T_{STG}	$^{\circ}\text{C}$		-55 to +150



PXTA44

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	V _{(BR)CBO}	V	I _C =100μA, I _E =0	400		
Collector-emitter breakdown voltage	V _{(BR)CEO}	V	I _C =1mA, I _B =0	400		
Emitter-base breakdown voltage	V _{(BR)EBO}	V	I _E =100μA, I _C =0	6		
Collector-base cut-off current	I _{CBO}	nA	V _{CB} =400V			100
Emitter-Base Cutoff Current	I _{EBO}	nA	V _{EB} =4V			100
DC current gain	h _{FE1}		V _{CE} =10V, I _C =1mA	40		
	h _{FE2}		V _{CE} =10V, I _C =10mA	50		200
	h _{FE3}		V _{CE} =10V, I _C =50mA	45		
	h _{FE4}		V _{CE} =10V, I _C =100mA	40		
Collector-emitter saturation voltage	V _{CE(sat)}	V	I _C =10mA, I _B =1mA			0.5
			I _C =50mA, I _B =5mA			0.75
Base-Emitter Saturation Voltage	V _{BE(SAT)}	V	I _C =10mA, I _B =1mA			0.85
Transition frequency	f _T	MHz	I _C =20mA, V _{CE} =10V, f=100MHz	50		

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	250
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	50

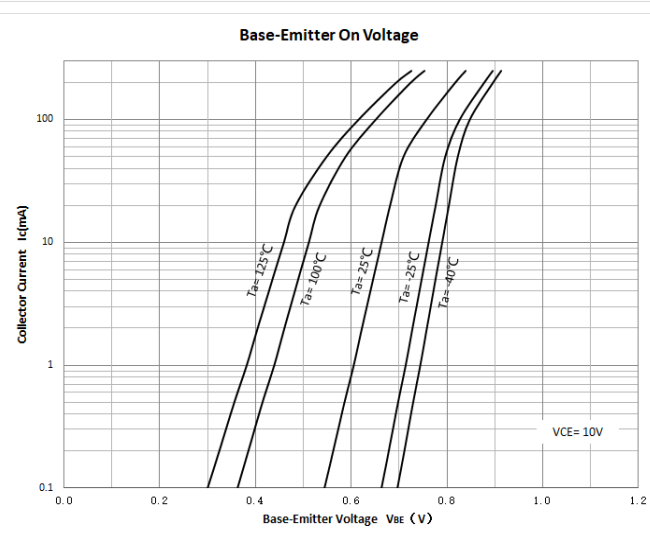
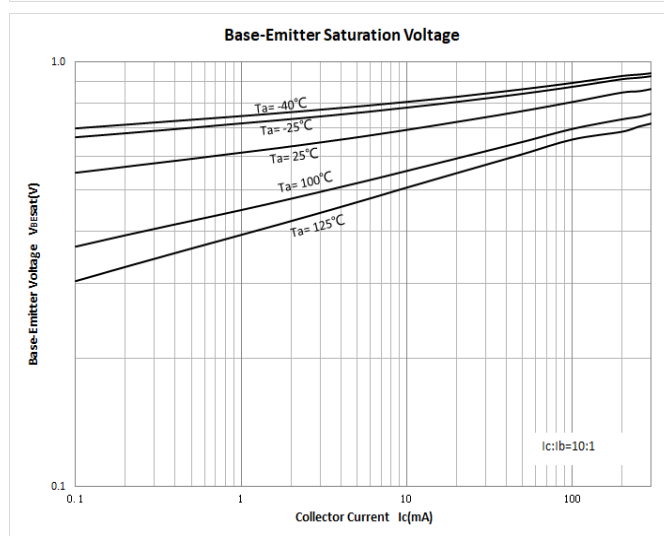
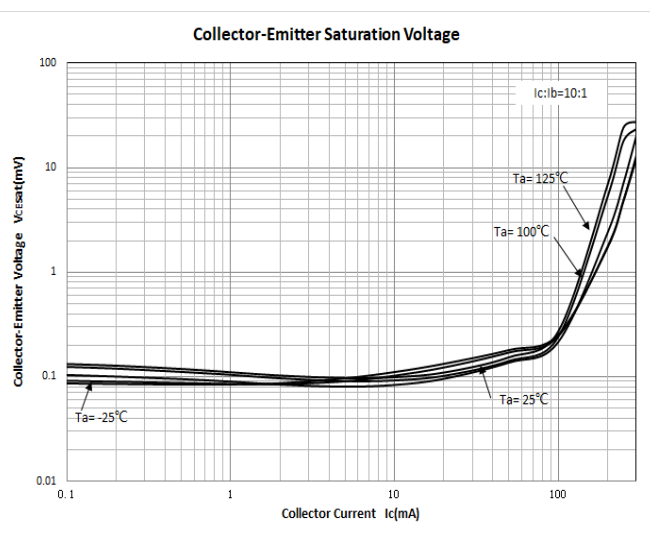
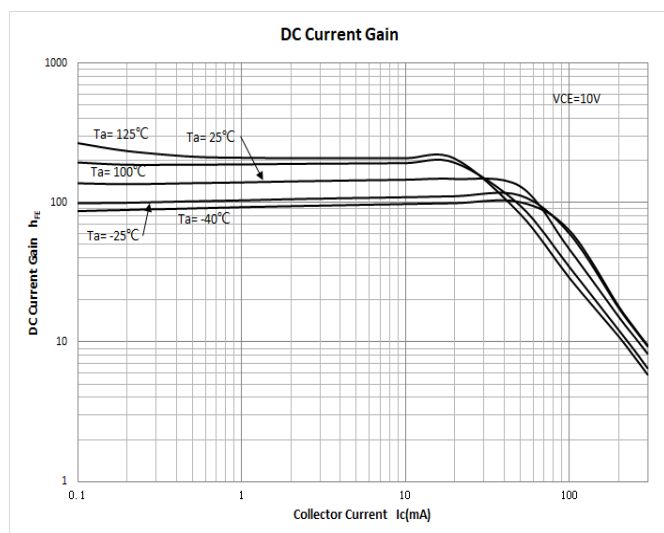
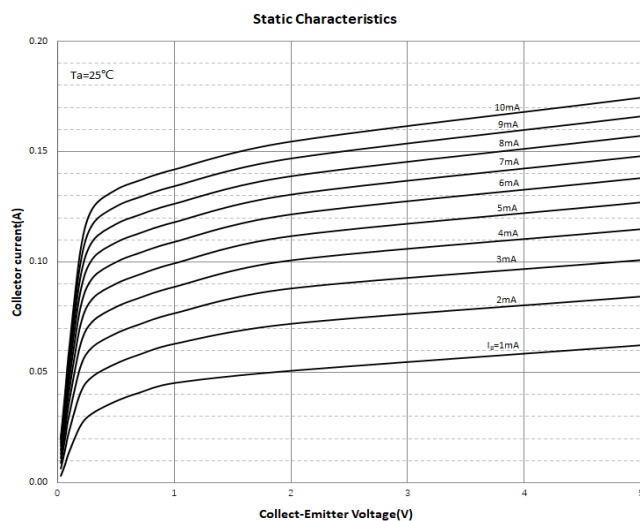
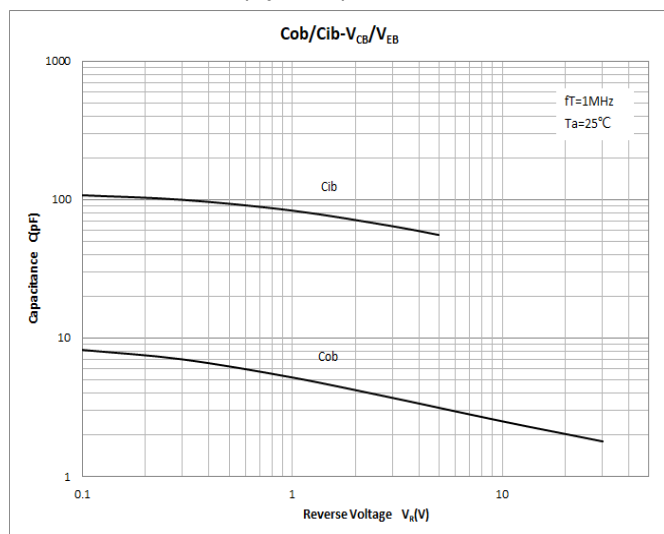
Note1: The device is installed and tested on 25.4 * 25.4 * 1.5mm P.C.B.

■ Ordering Information

Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
PXTA44	F2	Approximate 0.055	1000	8000	32000	7" reel

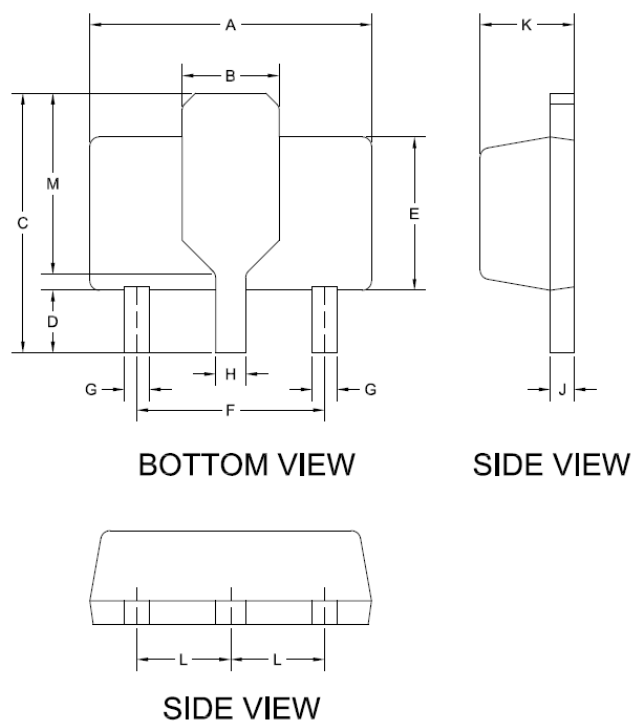


■ Characteristics(Typical)



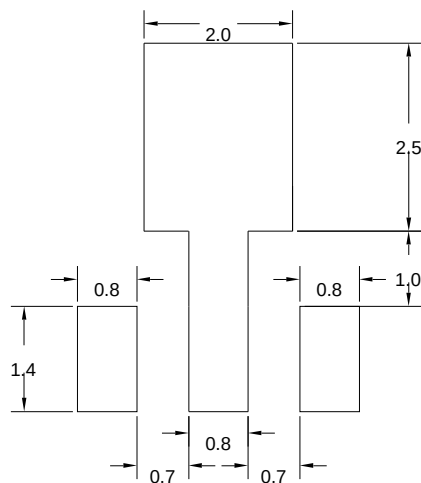


■ Outline Dimensions



DIM	DIMENSIONS			
	INCHES		MM	
	MIN.	MAX.	MIN.	MAX.
A	0.173	0.181	4.400	4.600
B	0.061 TYP.		1.550 TYP.	
C	0.155	0.167	3.940	4.250
D	0.031	0.047	0.800	1.200
E	0.094	0.102	2.400	2.600
F	0.118 TYP.		3.00 TYP.	
G	0.014	0.019	0.360	0.480
H	0.017	0.022	0.440	0.560
J	0.014	0.017	0.350	0.440
K	0.055	0.063	1.400	1.600
L	0.059 TYP.		1.500 TYP.	
M	0.108 TYP.		2.750 TYP.	

■ Suggested Pad Layout



UNIT:MM



PXTA44

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