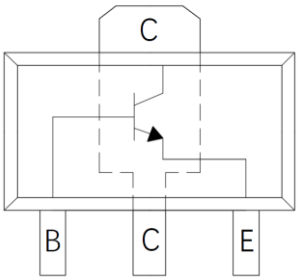
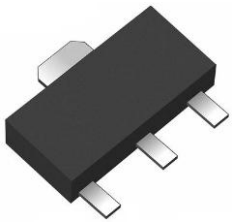
Hight Voltage NPN Transistor

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℃ Unless otherwise specified)

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

■ Electrical Characteristics (Ta=25℃ 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

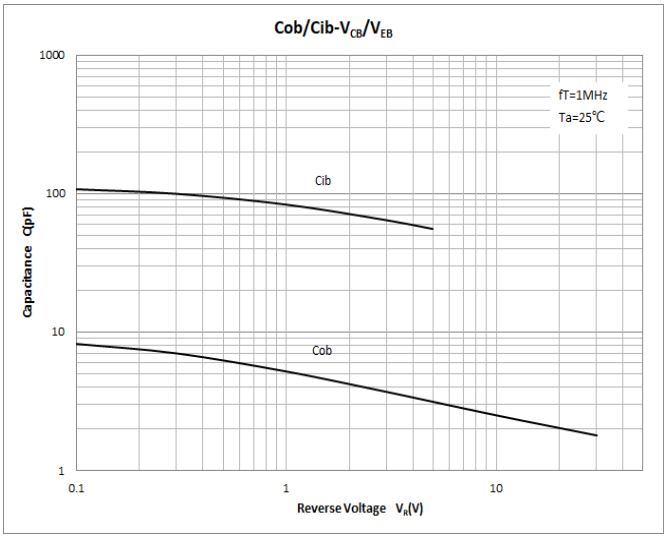
Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}$(1)	℃/W	250
Thermal resistance, junction-to-case	$R_{\theta J-C}$(1)	℃/W	50

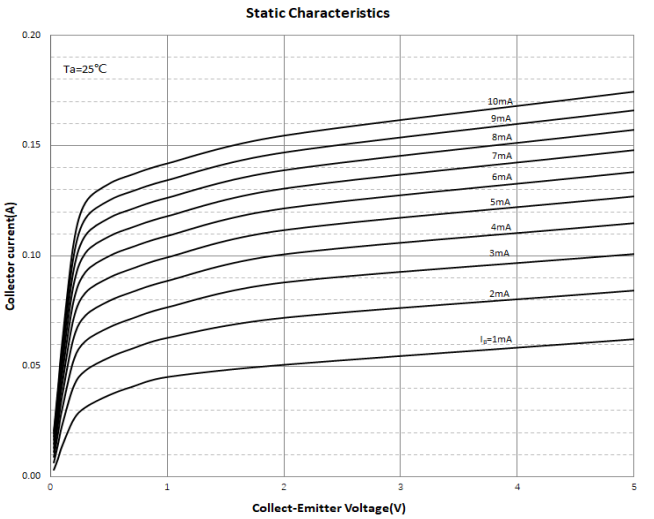
Note1: The device is installed and tested on 25.4 * 25.4 * 1.5mm P.C.B.

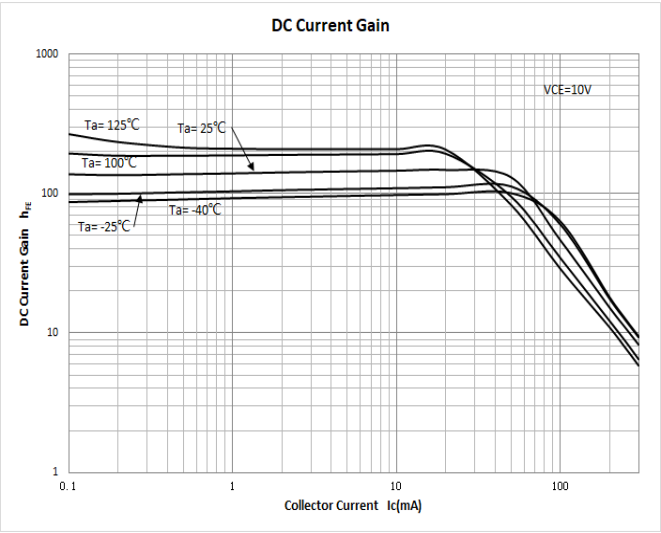
■Ordering Information

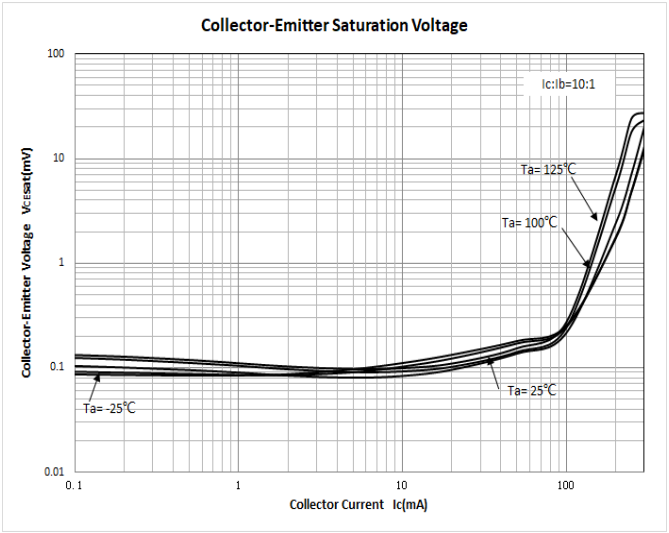
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
PXTA44	F2	Approximate 0.055	1000	8000	32000	7” reel

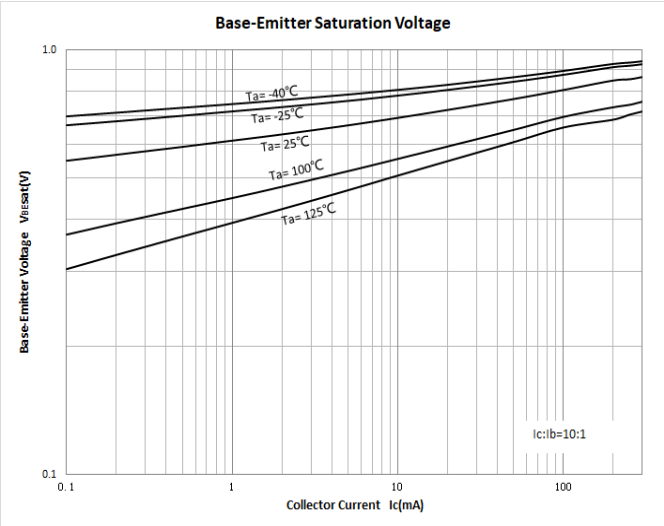
■Characteristics(Typical)

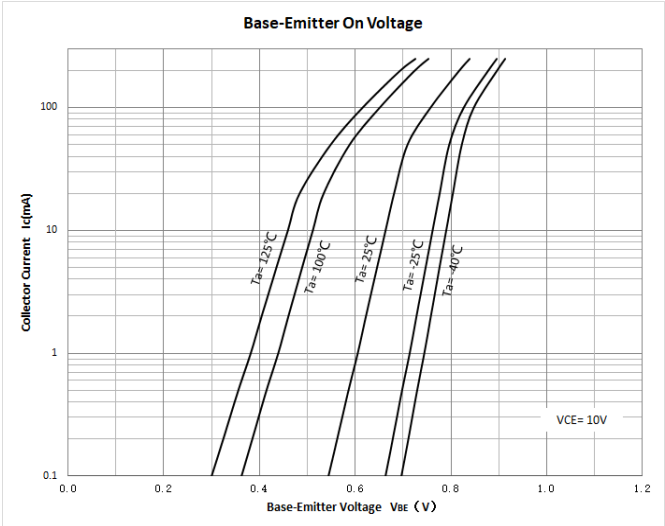




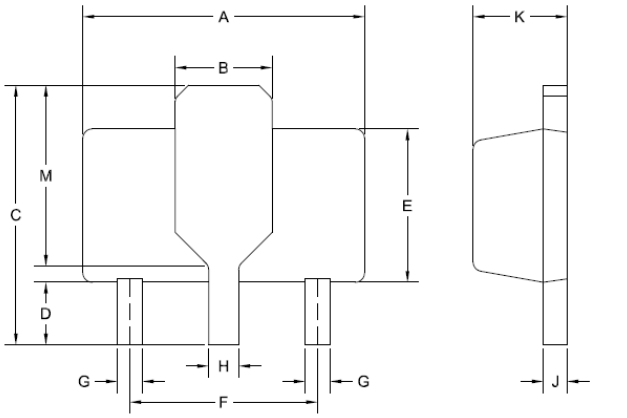






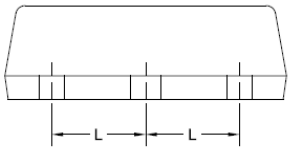


■ Outline Dimensions



BOTTOM VIEW

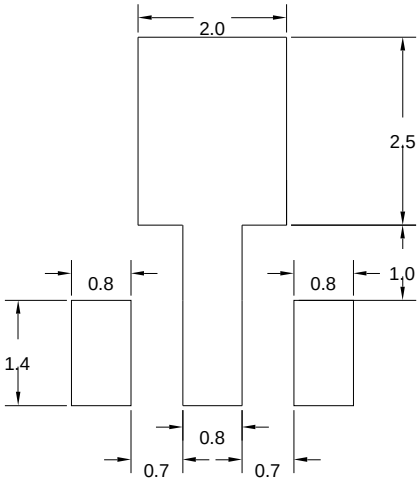
SIDE VIEW



SIDE VIEW

DIMENSIONS				
DIM	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

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