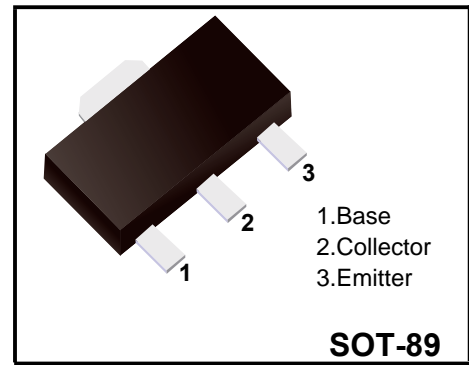


Plastic-Encapsulate Transistors
TRANSISTOR(NPN)
Features

- ◆ Switching and amplification in high voltage
- ◆ Applications such as telephony
- ◆ Low current(max. 600mA)
- ◆ High voltage(max.180V)

Mechanical Data

- ◆ SOT-89 Small Outline Plastic Package
- ◆ Epoxy UL: 94V-0
- ◆ Mounting Position: Any

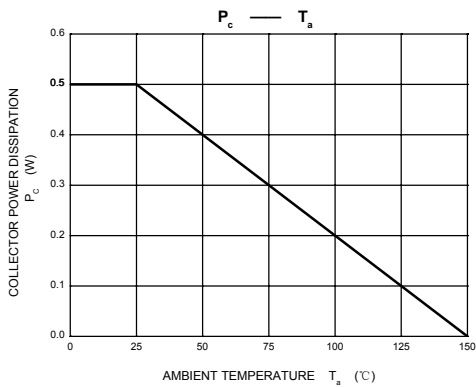
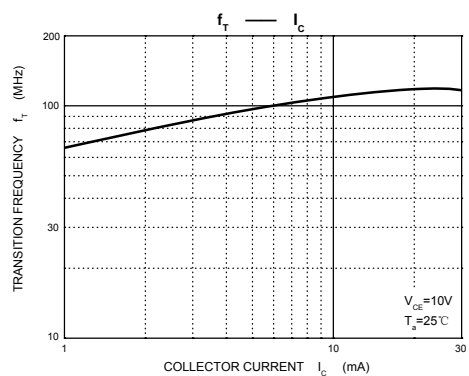
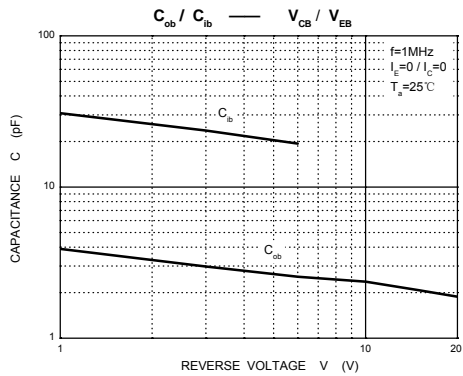
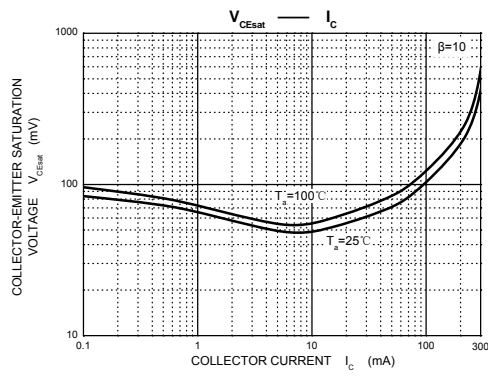
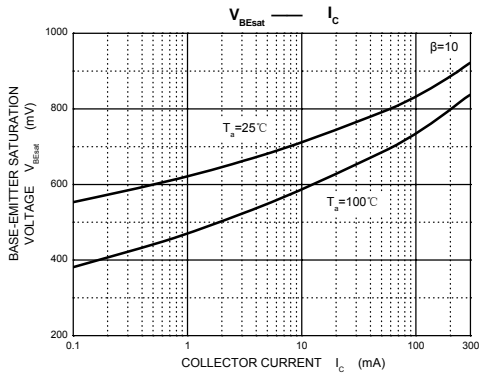
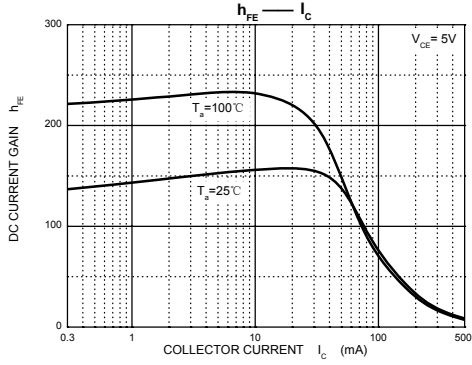
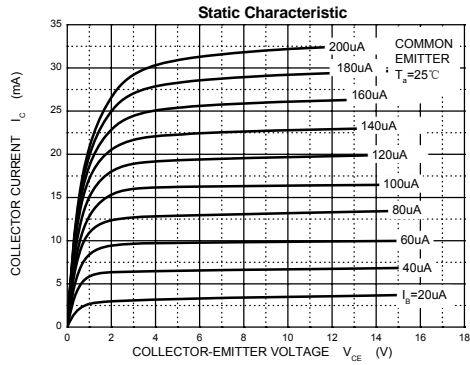

Marking Code
CXT5551
1G6
Maximum Ratings & Thermal Characteristics
(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter -Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	600	mA
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55-+150	°C

Valid provided that electrodes are kept at ambient temperature.
Electrical Characteristics
(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Test Condition	Symbols	Limits			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	$I_C=100\mu A, I_E=0$	$V(BR)_{CBO}$	180	-	-	V
Collector-emitter breakdown voltage	$I_C=1mA, I_B=0$	$V(BR)_{CEO}$	160	-	-	V
Emitter-base breakdown voltage	$I_E=10\mu A, I_C=0$	$V(BR)_{EBO}$	6	-	-	V
Collector cut-off current	$V_{CB}=120V, I_E=0$	I_{CBO}			50	nA
Emitter cut-off current	$V_{EB}=4V, I_C=0$	I_{EBO}			50	nA
DC current gain	$V_{CE}=5V, I_C=1mA$	$h_{FE(1)}$	80			
	$V_{CE}=5V, I_C=10mA$	$h_{FE(2)}$	100	300		
	$V_{CE}=5V, I_C=50mA$	$h_{FE(3)}$	30			
Collector-emitter saturation voltage	$I_C=10mA, I_B=1mA$	$V_{CE(sat)}$			0.15	V
	$I_C=50mA, I_B=5mA$				0.20	V
Base -emitter saturation voltage	$I_C=10mA, I_B=1mA$	$V_{BE(sat)}$			1	V
	$I_C=50mA, I_B=5mA$				1	V
Transition frequency	$V_{CE}=10V, I_C=10mA, f=100MHz$	f_T	100			MHz
Output capacitance	$V_{CB}=10V, I_E=0, f=1MHz$	C_{ob}			6	PF
Noise figure	$f=10Hz$ to $15.7KHz$ $R_S=10\Omega$	NF			8	dB

Typical Characteristics



Ordering information

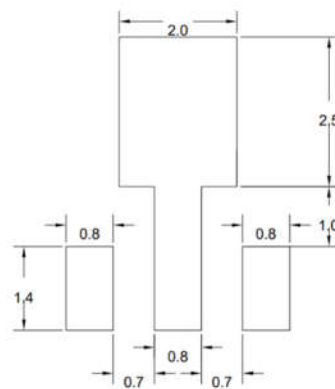
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel,7"reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-89

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

Disclaimer

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