

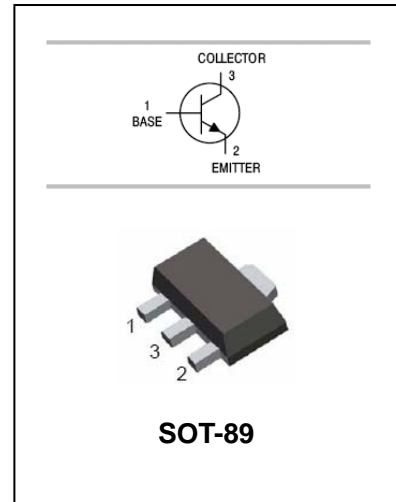


NPN Silicon Epitaxial Planar Transistor

CXT5551

FEATURES

- Switching and amplification in high voltage.
- Low current(max. 600mA)
- High voltage (max. 180V)



APPLICATIONS

- High voltage amplifier application.

ORDERING INFORMATION

Type No.	Marking	Package Code
CXT5551	1G6	SOT-89

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	180	V
V _{CEO}	Collector-Emitter Voltage	160	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	600	mA
P _C	Collector Dissipation	0.625	W
R _{θJA}	Thermal resistance	250	°C/W
T _j , T _{stg}	Junction and Storage Temperature	-65 to +150	°C



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	180		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1.0mA, I_B=0$	160		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB}=120V, I_E=0$		50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$		50	nA
DC current gain	h_{FE}	$V_{CE}=5V, I_C=1mA$ $V_{CE}=5V, I_C=10mA$ $V_{CE}=5V, I_C=50mA$	80 80 30	250	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$ $I_C=50mA, I_B=5mA$		0.15 0.20	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$ $I_C=50mA, I_B=5mA$		1.0 1.0	V
Transition frequency	f_T	$V_{CE}=10V, I_C=10mA,$ $f=100MHz$	100	300	MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		6.0	pF
Small-signal current gain	h_{fe}	$I_C=1mA, V_{CE}=10V,$ $f=1.0kHz$	50	200	
Noise Figure	NF	$I_C=200\mu A, V_{CE}=5V,$ $f=10-15.7kHz, R_S=1.0\Omega$		8	dB



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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

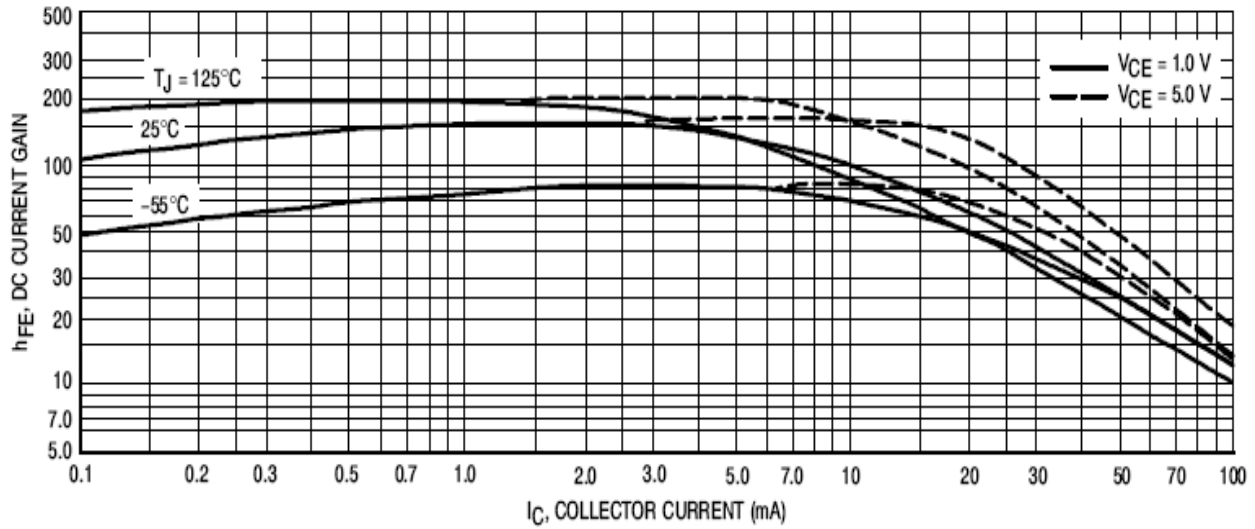


Figure 1. DC Current Gain

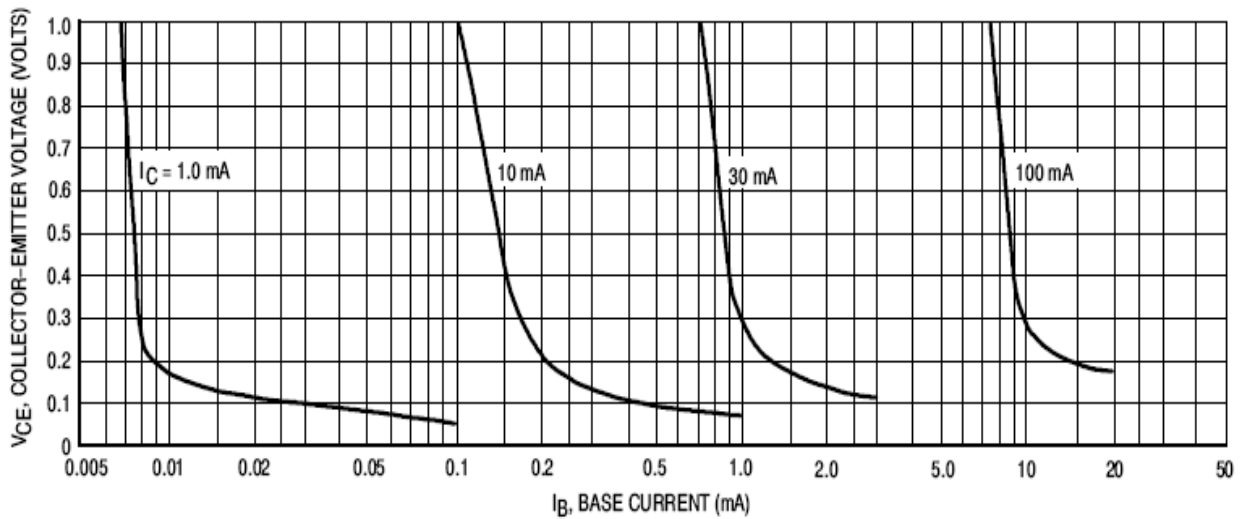


Figure 2. Collector Saturation Region



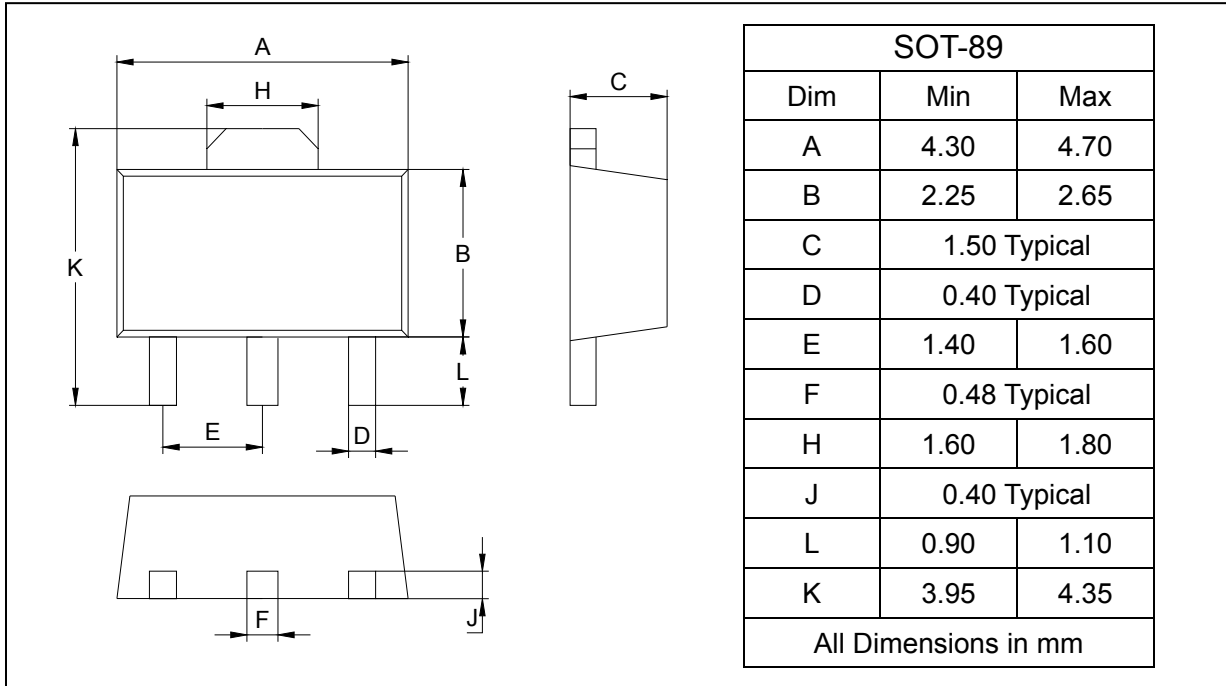
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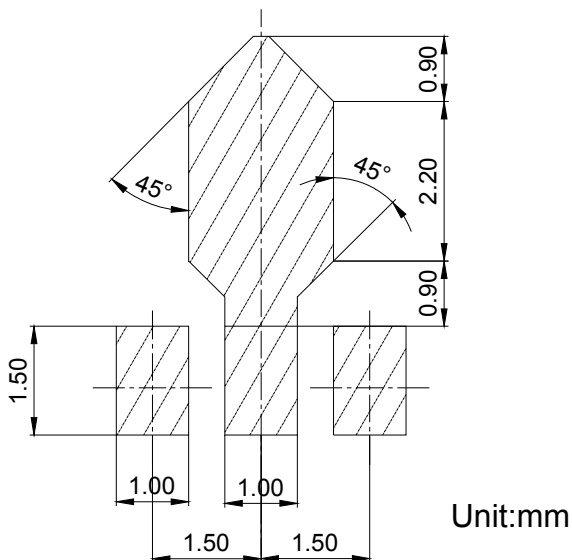
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
CXT5551	SOT-89	1000/Tape&Reel