

MSKSEMI

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ESD



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PLED

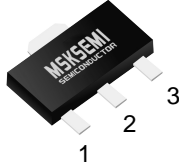
Product data sheet

www.msksemi.com

FEATURES

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

SOT-89



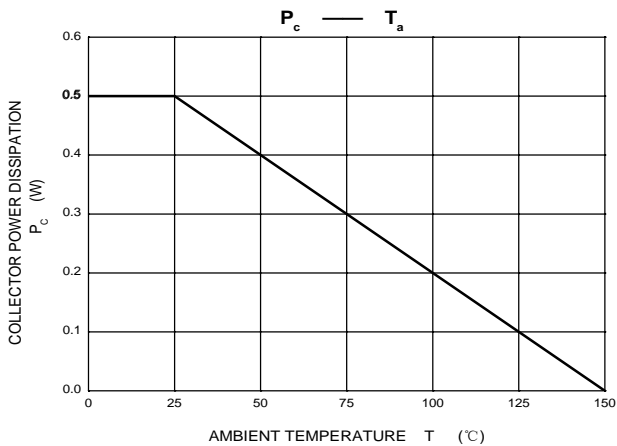
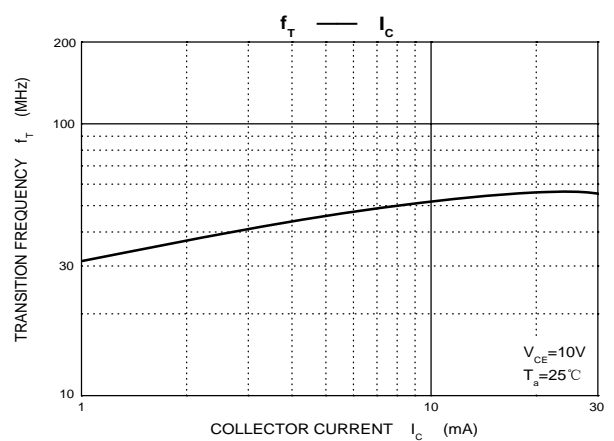
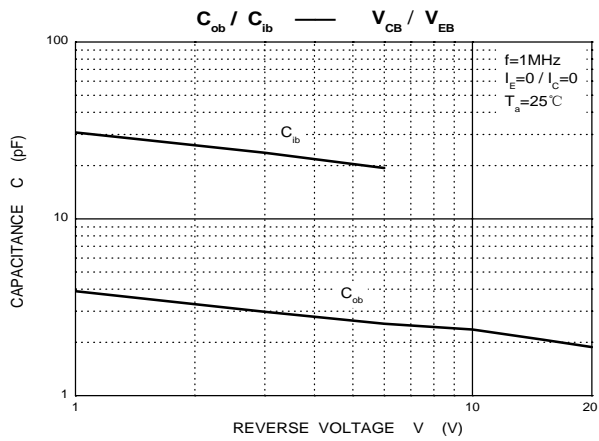
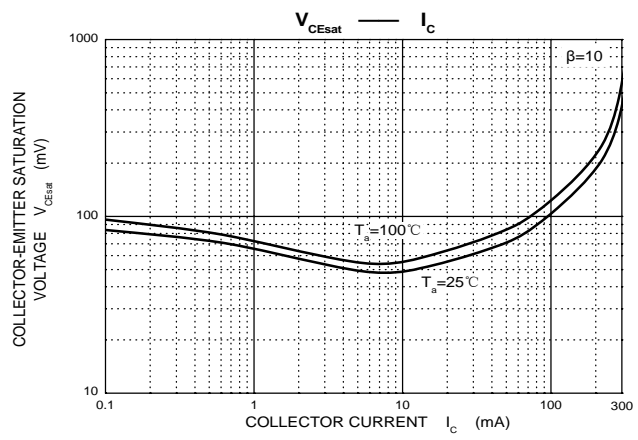
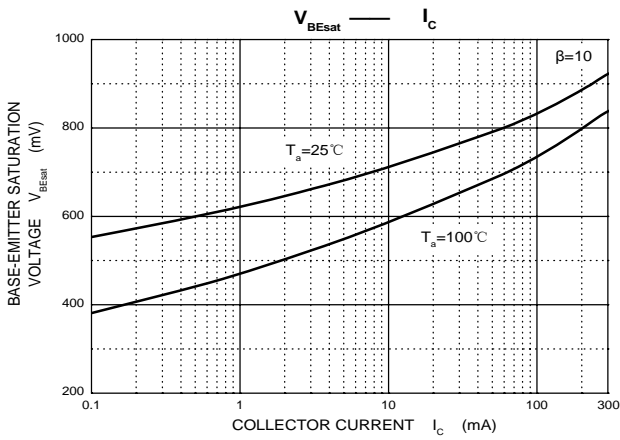
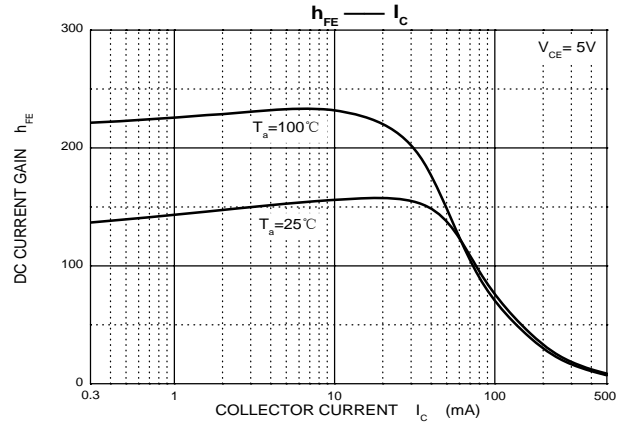
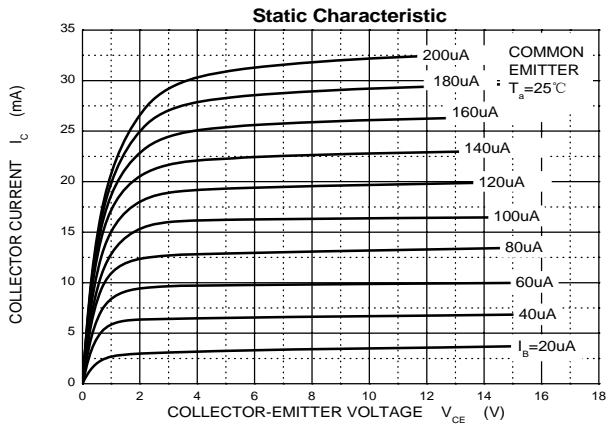
1. BASE
2. COLLECTOR
3. EMITTER

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

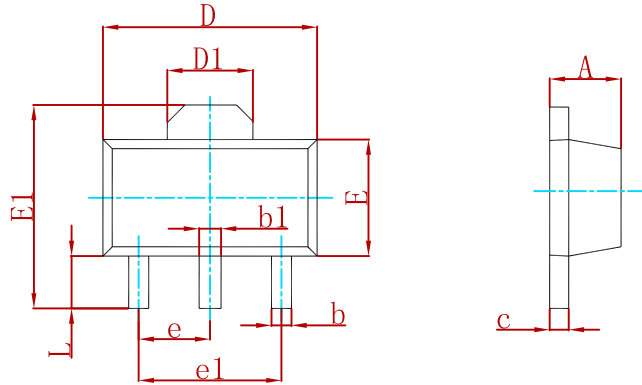
Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	180	V
V _{CEO}	Collector-Emitter Voltage	160	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	0.6	A
P _C	Collector Power Dissipation	0.5	W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μ A, I _E =0	180			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	160			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10 μ 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(1)}	V _{CE} =5V, I _C =1mA	80			
	h _{FE(2)}	V _{CE} =5V, I _C =10mA	100		300	
	h _{FE(3)}	V _{CE} =5V, I _C =50mA	30			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =10mA, I _B =1mA			0.15	V
	V _{CE(sat)}	I _C =50mA, I _B =5mA			0.2	V
Base-emitter voltage	V _{BE(sat)}	I _C =10mA, I _B =1mA			1	V
	V _{BE(sat)}	I _C =50mA, I _B =5mA			1	V
Transition frequency	f _T	V _{CE} =10V, I _C =10mA, f=100MHz	100			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			6	pF
Noise figure	NF	V _{CE} =5V, I _C =0.2mA, f=10Hzto15.7KHZ, R _s =10Ω			8	dB

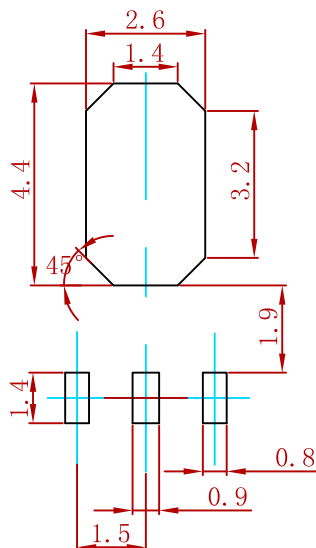


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

Suggested Pad Layout



Note:
 1. Controlling dimension: in millimeters.
 2. General tolerance: ±0.05mm.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
CXT5551	SOT-89	1000

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