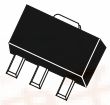
CXT3019

SURFACE MOUNT
NPN SILICON TRANSISTORS



SOT-89 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CXT3019 type is an NPN silicon transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high current general purpose amplifier applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	140	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	7.0	V
Collector Current	I_C	1.0	A
Collector Current (Peak)	I_{CM}	1.5	A
Power Dissipation	P_D	1.2	W
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	104	°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	V_{CB}=90V		10	nA
I_{EBO}	V_{EB}=5.0V		10	nA
BV_{CBO}	I_C=100μA	140		V
BV_{CEO}	I_C=30mA	80		V
BV_{EBO}	I_E=100μA	7.0		V
$V_{CE(SAT)}$	I_C=150mA, I_B=15mA		0.2	V
$V_{CE(SAT)}$	I_C=500mA, I_B=50mA		0.5	V
$V_{BE(SAT)}$	I_C=150mA, I_B=15mA		1.1	V
h_{FE}	V_{CE}=10V, I_C=0.1mA	50		
h_{FE}	V_{CE}=10V, I_C=10mA	90		
h_{FE}	V_{CE}=10V, I_C=150mA	100	300	
h_{FE}	V_{CE}=10V, I_C=500mA	50		
h_{FE}	V_{CE}=10V, I_C=1.0A	15		

R3 (20-December 2001)

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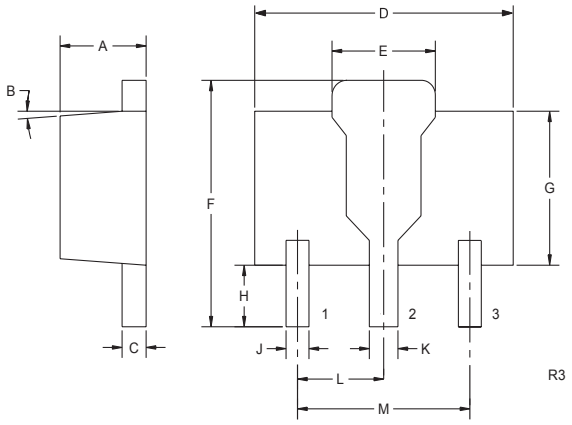
ELECTRICAL CHARACTERISTICS (Continued)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	V_{CE}=10V, I_C=50mA, f=1.0MHz	100		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		12	pF
C_{ib}	V_{EB}=0.5V, I_C=0, f=1.0MHz		60	pF
NF	V_{CE}=10V, I_C=100μA, R_S=1kΩ, f=1.0kHz		4.0	dB

SOT-89 CASE - MECHANICAL OUTLINE



BOTTOM VIEW

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.016	0.018	0.40	0.46
D	0.173	0.185	4.40	4.70
E	0.070	0.074	1.79	1.87
F	0.146	0.177	3.70	4.50
G	0.094	0.106	2.40	2.70
H	0.028	0.051	0.70	1.30
J	0.015	0.019	0.38	0.48
K	0.019	0.023	0.48	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R3)

LEAD CODE:
1) EMITTER
2) COLLECTOR
3) BASE

R3 (20-December 2001)