CXT3150

SURFACE MOUNT
NPN SILICON POWER TRANSISTOR

POWER 89™

SOT-89 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CXT3150 type is a NPN Silicon Power Transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high current, high gain, fast switching applications.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	7.0	V
Collector Current	I_C	5.0	A
Base Current	I_B	1.0	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	TYP	MAX	UNITS
I_{CBO}	V_{CB}=50V			1.0	μA
I_{EBO}	V_{EB}=7.0V			1.0	μA
BV_{CEO}	I_C=10mA	25			V
$V_{CE(SAT)}$	I_C=3.0A, I_B=150mA			0.5	V
$V_{CE(SAT)}$	I_C=4.0A, I_B=200mA			0.6	V
$V_{BE(SAT)}$	I_C=3.0A, I_B=150mA			1.10	V
$V_{BE(SAT)}$	I_C=4.0A, I_B=200mA			1.40	V
h_{FE}	V_{CE}=2.0V, I_C=500mA	250		550	
h_{FE}	V_{CE}=2.0V, I_C=2.0A	150			
h_{FE}	V_{CE}=2.0V, I_C=5.0A	50			
f_T	V_{CE}=6.0V, I_C=50mA, f=200MHz		150		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz			50	pF

R5 (04-May 2005)

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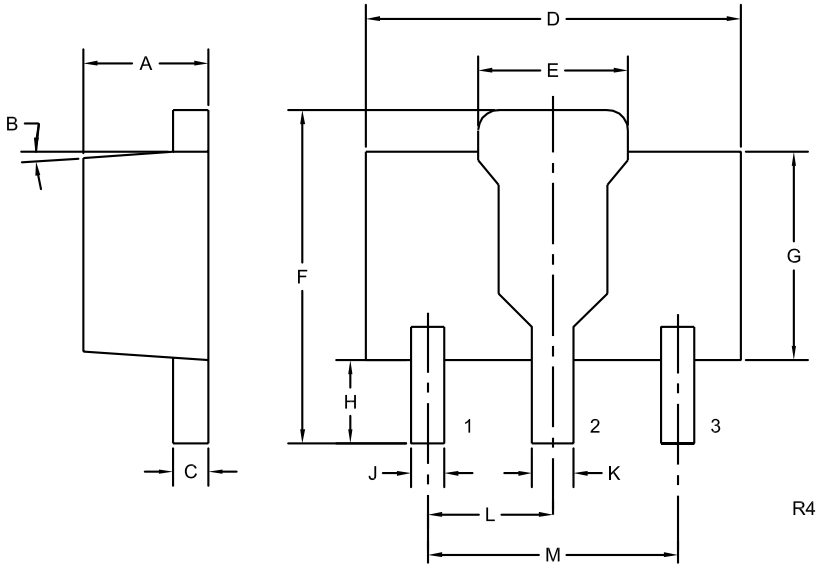
SOT-89 CASE - MECHANICAL OUTLINE



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

MARKING CODE:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.014	0.018	0.35	0.46
D	0.173	0.185	4.40	4.70
E	0.064	0.074	1.62	1.87
F	0.146	0.177	3.70	4.50
G	0.090	0.106	2.29	2.70
H	0.028	0.051	0.70	1.30
J	0.014	0.019	0.36	0.48
K	0.017	0.023	0.44	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R4)

R5 (04-May 2005)