CXTA44

SURFACE MOUNT
NPN SILICON
HIGH VOLTAGE TRANSISTOR

SOT-89 CASE

Central™
Semiconductor Corp.

DESCRIPTION:
The CENTRAL SEMICONDUCTOR CXTA44 type is a surface mount epoxy molded silicon planar epitaxial transistors designed for extremely high voltage applications.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	450	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	300	mA
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}=400V		100	nA
I_{CES}	V_{CE}=400V		500	nA
I_{EBO}	V_{BE}=4.0V		100	nA
BV_{CBO}	I_C=100μA	450		V
BV_{CES}	I_C=100μA	450		V
BV_{CEO}	I_C=1.0mA	400		V
BV_{EBO}	I_E=10μA	6.0		V
$V_{CE(SAT)}$	I_C=1.0mA, I_B=0.1mA		0.40	V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.50	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA		0.75	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA		0.75	V

R3 (14-November 2002)

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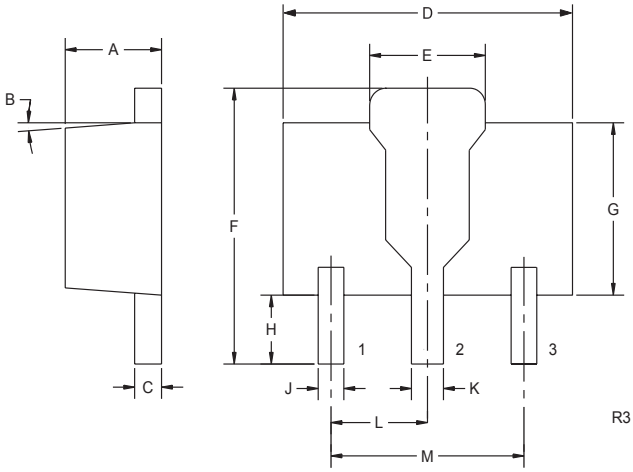
ELECTRICAL CHARACTERISTICS: Continued

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
h_{FE}	V_{CE}=10V, I_C=1.0mA	40		
h_{FE}	V_{CE}=10V, I_C=10mA	50	200	
h_{FE}	V_{CE}=10V, I_C=50mA	45		
h_{FE}	V_{CE}=10V, I_C=100mA	20		
f_T	V_{CE}=10V, I_C=10mA, f=10MHz	20		MHz
C_{ob}	V_{CB}=20V, I_E=0, f=1.0MHz		7.0	pF
C_{ib}	V_{EB}=0.5V, I_C=0, f=1.0MHz		130	pF

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

MARKING CODE: FULL PART NUMBER

R3 (14-November 2002)