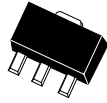


**CXTA27**  
**SURFACE MOUNT**  
**NPN DARLINGTON TRANSISTOR**



**SOT-89 CASE**

# Central<sup>TM</sup>

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CXTA27 type is a NPN Silicon Darlington Transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring extremely high gain.

**MAXIMUM RATINGS** ( $T_A=25^\circ\text{C}$ )

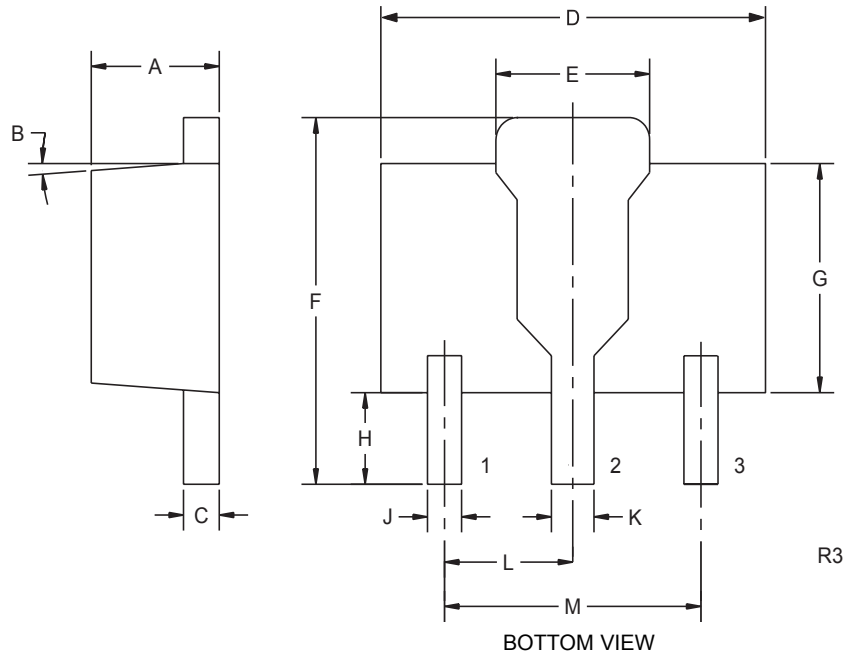
	<b>SYMBOL</b>		<b>UNITS</b>
Collector-Emitter Voltage	$V_{CES}$	60	V
Emitter-Base Voltage	$V_{EBO}$	10	V
Collector Current	$I_C$	500	mA
Power Dissipation	$P_D$	1.2	W
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	104	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$I_{CBO}$	$V_{CB}=50\text{V}$		100	nA
$I_{CES}$	$V_{CE}=50\text{V}$		500	nA
$I_{EBO}$	$V_{EB}=10\text{V}$		100	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$	60		V
$BV_{CES}$	$I_C=100\mu\text{A}$	60		V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=0.1\text{mA}$		1.5	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=100\text{mA}$		2.0	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}$	10,000		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=100\text{mA}$	10,000		
$f_T$	$V_{CE}=50\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	125		MHz

**SURFACE MOUNT  
NPN DARLINGTON TRANSISTOR**

**SOT-89 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) EMITTER
- 2) COLLECTOR
- 3) BASE

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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)