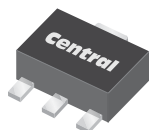


CXTA27

**SURFACE MOUNT  
NPN SILICON  
DARLINGTON TRANSISTOR**



**SOT-89 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**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.

**MARKING: FULL PART NUMBER**

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

Collector-Emitter Voltage  
Emitter-Base Voltage  
Continuous Collector Current  
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$V_{CES}$  60  
 $V_{EBO}$  10  
 $I_C$  500  
 $P_D$  1.2  
 $T_J, T_{stg}$  -65 to +150  
 $\Theta_{JA}$  104

**UNITS**

V  
V  
mA  
W  
 $^{\circ}\text{C}$   
 $^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=50\text{V}$		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

R4 (23-February 2010)

**CXTA27**

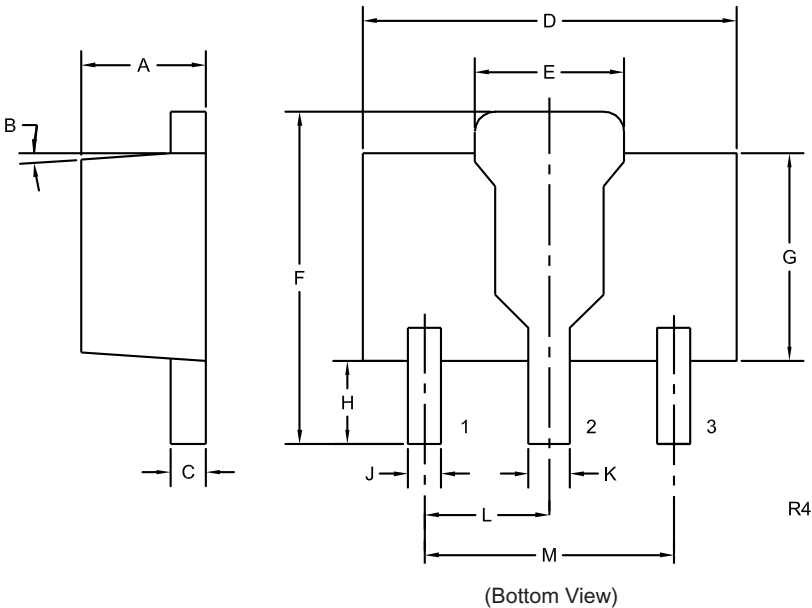
**SURFACE MOUNT**

**NPN SILICON**

**DARLINGTON TRANSISTOR**



SOT-89 CASE - MECHANICAL OUTLINE



**LEAD CODE:**  
1) Emitter  
2) Collector  
3) Base

**MARKING:**  
**FULL PART NUMBER**

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	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)

R4 (23-February 2010)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

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