CMPTA27

SURFACE MOUNT NPN SILICON DARLINGTON TRANSISTOR



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPTA27 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 CODE: FG



MAXIMUM RATINGS: (T _A =25°C)	SYMBOL		UNITS
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CES}	60	V
Emitter-Base Voltage	V_{EBO}	10	V
Continuous Collector Current	IC	500	mA
Power Dissipation	P_{D}	350	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	ΘJΑ	357	°C/W

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

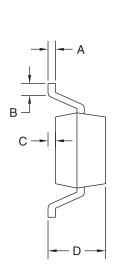
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
ICES	V _{CE} =50V		500	nA
I _{СВО}	V _{CB} =50V		100	nA
^I EBO	V _{BE} =10V		100	nA
BVCES	I _C =100μA	60		V
BV _{CBO}	I _C =100μA	60		V
V _{CE} (SAT)	I _C =100mA, I _B =0.1mA		1.5	V
V _{BE} (ON)	V_{CE} =5.0V, I_{C} =100mA		2.0	V
hFE	V_{CE} =5.0V, I_{C} =10mA	10,000		
h _{FE}	V_{CE} =5.0V, I_{C} =100mA	10,000		
f _T	V_{CE} =5.0V, I_{C} =10mA, f=100MHz	125		MHz

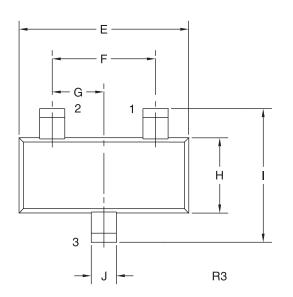
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SOT-23 CASE - MECHANICAL OUTLINE





LEAD CODE:

- 1) Base 2) Emitter 3) Collector

MARKING CODE: FG

DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.003	0.007	0.08	0.18			
В	0.006	-	0.15	-			
С	-	0.005	-	0.13			
D	0.035	0.043	0.89	1.09			
E	0.110	0.120	2.80	3.05			
F	0.075		1.90				
G	0.037		0.95				
Н	0.047	0.055	1.19	1.40			
I	0.083	0.098	2.10	2.49			
J	0.014	0.020	0.35	0.50			

SOT-23 (REV: R3)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free guick ship samples (2nd 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

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).

CONTACT US

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