CMPTA29

SURFACE MOUNT
HIGH VOLTAGE
NPN SILICON
DARLINGTON TRANSISTOR



SOT-23 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPTA29 is an NPN silicon darlington transistor manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for applications requiring extremely high voltage and high gain.

MARKING CODE: C29

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CES}	100	V
Emitter-Base Voltage	V_{EBO}	12	V
Continuous Collector Current	I_C	500	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

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

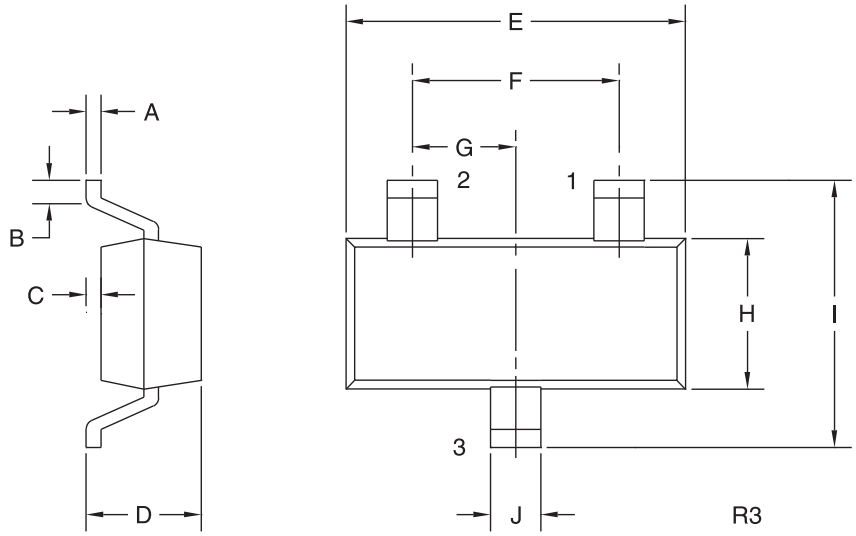
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CES}	V_{CE}=80V		500	nA
I_{CBO}	V_{CB}=80V		100	nA
I_{EBO}	V_{BE}=10V		100	nA
BV_{CES}	I_C=100μA	100		V
BV_{CBO}	I_C=100μA	100		V
BV_{EBO}	I_E=10μA	12		V
$V_{CE(SAT)}$	I_C=10mA, I_B=10μA		1.2	V
$V_{CE(SAT)}$	I_C=100mA, I_B=100μA		1.5	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_C=100mA		2.0	V
h_{FE}	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
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		8.0	pF

R4 (3-February 2010)

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SOT-23 CASE - MECHANICAL OUTLINE



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

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DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	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	
H	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 quick 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

Corporate Headquarters & Customer Support Team

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