CMLTA44

SURFACE MOUNT SILICON EXTREMELY HIGH VOLTAGE NPN TRANSISTOR



SOT-563 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLTA44 is an NPN high voltage transistor, epoxy molded in a space saving SOT-563 surface mount package and designed for extremely high voltage applications.

MARKING CODE: 44C

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
Continuous Collector Current	I_C	300	mA
Power Dissipation	P_D	250	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	500	°C/W

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

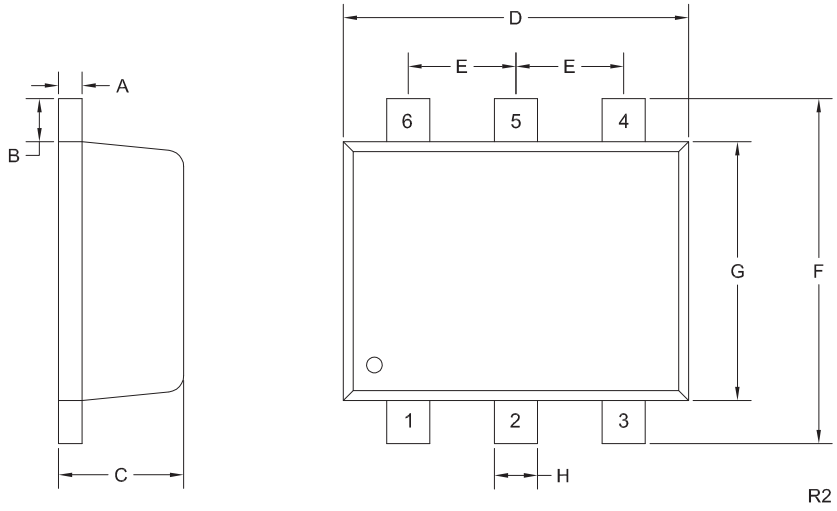
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=400V		100	nA
I_{CES}	V_{CE}=400V		500	nA
I_{EBO}	V_{EB}=4.0V		100	nA
BV_{CBO}	I_C=100μA	450		V
BV_{CES}	I_C=100μA	450		V
BV_{CEO}	I_C=1.0mA	400		V
BV_{EBO}	I_E=10μA	6.0		V
$V_{CE(SAT)}$	I_C=1.0mA, I_B=0.1mA		0.40	V
$V_{CE(SAT)}$	I_C=10mA, 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
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

R3 (29-June 2015)

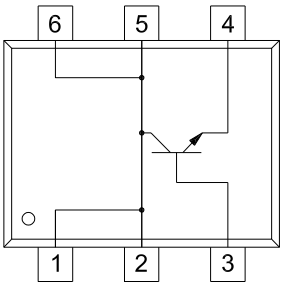
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NPN TRANSISTOR

SOT-563 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.0027	0.007	0.07	0.18
B	0.008		0.20	
C	0.017	0.024	0.45	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.059	0.067	1.50	1.70
G	0.043	0.051	1.10	1.30
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R2)

LEAD CODE:
1) Collector
2) Collector
3) Base
4) Emitter
5) Collector
6) Collector
Pins 1, 2, 5 and 6 are common.

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R3 (29-June 2015)

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SERVICES

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development / Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

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R3 (29-June 2015)