

CSMF03V3C CSMF15C  
CSMF05C CSMF24C  
CSMF12C CSMF36C

**SURFACE MOUNT  
5-LINE SILICON TVS/ZENER ARRAY  
3.3 VOLTS THRU 36 VOLTS**

Specified by  
STAND-OFF VOLTAGE

**ULTRAmimi™**



**SOT-363 CASE**

#### MARKING CODES

CSMF03V3C: CF03  
CSMF05C: CF05  
CSMF12C: CF12  
CSMF15C: CF15  
CSMF24C: CF24  
CSMF36C: CF36

# Central™

**Semiconductor Corp.**

#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSMF03V3C Series is a 5 Line TVS/Zener Array packaged in an ULTRAmimi SOT-363 surface mount case. These devices are designed to protect sensitive electronic equipment, such as computers, networking communication, cell phones and instrumentation from over-voltage transients and ESD damage. Available in voltages ranging from 3.3V to 36V.

#### FEATURES

- Very low Clamping Voltage
- Low Leakage Current
- 100W Power Dissipation
- SMD SOT-363 Package
- IEC61000-4-2 ESD 20kV air, 15kV Contact Compliance

#### APPLICATIONS:

- Hand Held Portable Applications
- Networks, Servers and Telecom
- Desktop and Notebook Computers
- Instrumentation

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

Peak Pulse Power (8x20usec Waveform)

ESD Voltage (HBM)

Operating and Storage Junction Temperature Range

#### SYMBOL

$P_{pp}$  100  
 $V_{ESD}$  25  
 $T_J, T_{stg}$  -55 to +150

#### UNITS

W  
kV  
 $^\circ\text{C}$

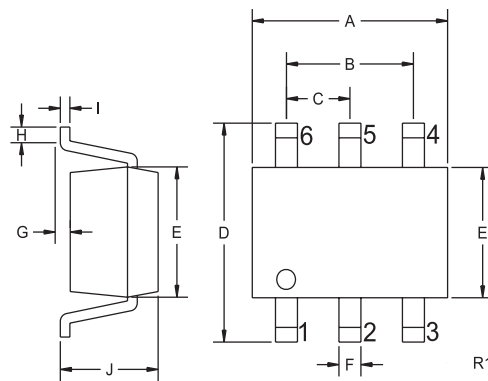
**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

TYPE NO.	Maximum Reverse Stand-Off Voltage	Minimum Reverse Breakdown Voltage		Maximum Reverse Leakage Current		Maximum Clamping Voltage 8 x 20 $\mu$ s		Maximum Clamping Voltage 8 x 20 $\mu$ s		Maximum Off State Junction Capacitance ( $V_R=0\text{V}$ , $f=1\text{MHz}$ )
	$V_{WRM}$ (V)	$V_{BR}$ (V)	$I_{BR}$ (mA)	$I_R$ ( $\mu\text{A}$ )	$V_R$ (V)	$V_{cl}$ (V)	$I_{PP}$ (A)	$V_{cl}$ (V)	$I_{PP}$ (A)	$C_J$ (pF)
CSMF03V3C	3.3	4.7	10	250	3.3	7.5	5.0	9	9	160
CSMF05C	5	6.2	1.0	0.5	5	9	5.0	10	9	90
CSMF12C	12	13.3	1.0	0.5	12	17	3.0	20	5	60
CSMF15C	15	16.6	1.0	0.5	15	23	3.0	25	4	46
CSMF24C	24	26.7	1.0	0.5	24	35	1.0	45	2	38
CSMF36C	36	38	1.0	0.5	36	40	1.0	50	2	27

R0 (19-December 2005)

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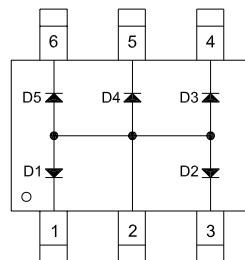
**SOT-363 - CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.073	0.085	1.85	2.15
B		0.051		1.30
C		0.026		0.65
D	0.075	0.091	1.90	2.30
E	0.043	0.055	1.10	1.40
F	0.006	0.012	0.15	0.30
G	0.000	0.004	0.00	0.10
H	0.010	-	0.25	-
I	0.004	0.010	0.10	0.25
J	0.031	0.039	0.80	1.00

SOT-363 (REV: R1)

**Pin Configuration**



Lead code:

- 1) Cathode D1
- 2) Anode D1, D2, D3, D4, D5
- 3) Cathode D2
- 4) Cathode D3
- 5) Cathode D4
- 6) Cathode D5

**Circuit Diagram**

