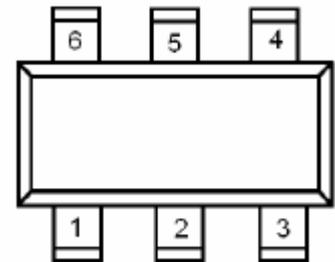




MSMF05C Standard Transient Voltage Suppressors Array

Features

- 100 W Peak Pulse Power per Line ($t_p=8/20\mu s$)
 - Monolithic Structure
 - Available in 4 Voltage Types:5V to 24V
 - Low Clamping Voltage
 - ESD Protection > 40 kilovolts
 - Low Leakage Current
 - Protects up to Four (4) Bidirectional Lines and Five(5) Unidirectional Lines
 - RoHS Compliant on Lead-Free Versions
- IEC61000-4-2(ESD): Air – 15kV, Contact – 8kV
IEC61000-4-4(EFT): 40A – 5/50ns



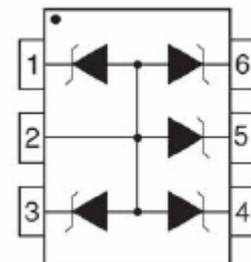
SOT-563

General Description

The Standard TVS are designed to low voltage, integrated circuits from transients caused by electrostatic discharge (ESD), electrical fast transients (EFT) and other induced voltages.

Applications

- Computer Notebooks
 - Communication Systems & Cellular Phones
 - Printers
 - Personal Digital Assistant(PDA)
- Video Equipment



PIN CONFIGURATION

Absolute Maximum Ratings @ 25°C Unless Otherwise Specified			
Parameter	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$) - See Fig1.	P_{PP}	100	W
Storage Temperature Range	T_{STG}	-55 to 150	°C
Operating Junction Temperature Range	T_J	-55 to 150	°C

Electrical Characteristics Per Line @ 25°C Unless Otherwise Specified

PART NUMBER	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM CLAMPING VOLTAGE (See Fig.2)	MAXIMUM CLAMPING VOLTAGE (See Fig.2)	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE (See Note 1)
	V_{WM} VOLTA	@ 1mA $V_{(BR)}$ VOLTA	@ $I_P = 1A$ V_C VOLTA	@ 8/20 μS $V_C @ I_{PP}$ VOLTA	@ V_{WM} I_b μA	0V@1MHz C pF
MSMF05C	5.0	6.0	9.8	12.0V@9.0A	1	40

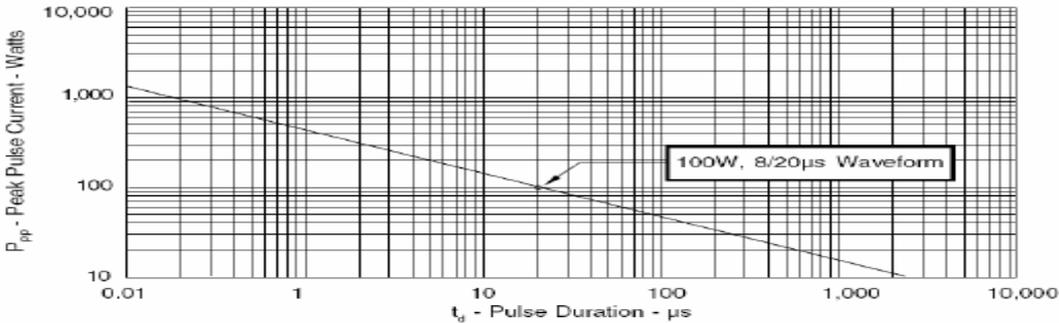


FIGURE 1. PEAK PULSE POWER VS PULSE TIME

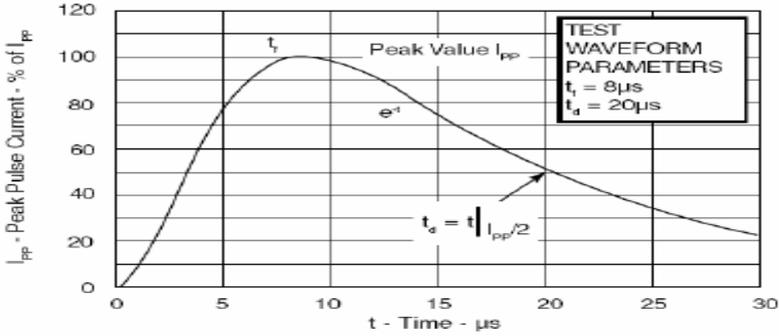


FIGURE 2. PULSE WAVE FORM

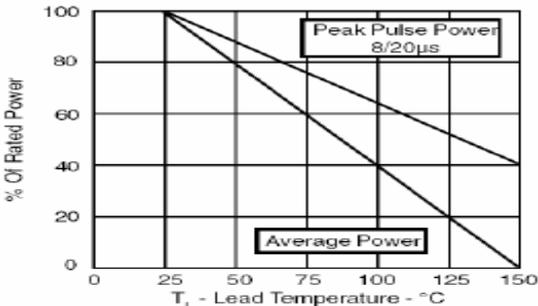


FIGURE 3. POWER DERATING CURVE

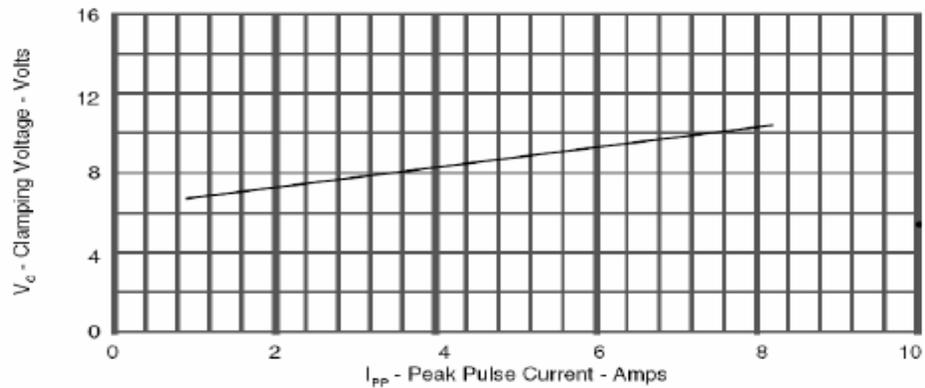
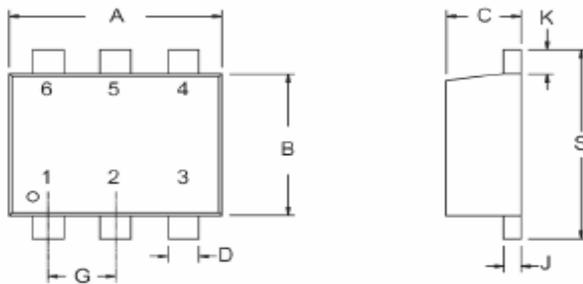


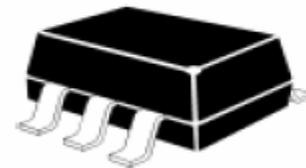
FIGURE 4 TYPICAL CLAMPING VOTAGE VS PEAK PULSE CURRENT

PACKAGE OUTLINE & DIMENSION

PACKAGE OUTLINE

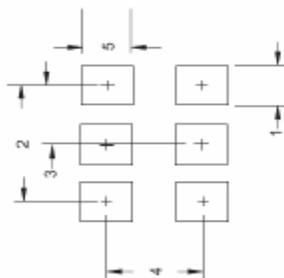


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MOUNTING PAD

TYPICAL		
DIM	Millimeters	Inches
1	0.30	0.012
2	1.02	0.040
3	0.51	0.020
4	1.40	0.055
5	0.51	0.020



PACKAGE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.70	0.059	0.067
B	1.10	1.30	0.043	0.051
C	0.50	0.60	0.020	0.024
D	0.17	0.27	0.007	0.011
G	0.50BSC	-	0.020BSC	-
J	0.08	0.16	0.003	0.007
K	0.10	0.30	0.004	0.012
S	1.50	1.70	0.059	0.067

NOTES

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches.
3. Pin3 is the cathode(Unidirectional Only).
4. Dimensions are exclusive of mold flash and metal burn.