MSQA6V1W5

Product Preview

Quad Array for ESD Protection

This quad monolithic silicon voltage suppressor is designed for applications requiring transient overvoltage protection capability. It is intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment, and other applications. Its quad junction common anode design protects four separate lines using only one package. These devices are ideal for situations where board space is at a premium.

Specification Features

- SC88A Package Allows Four Separate Unidirectional Configurations
- Low Leakage < 1 μA @ 3 Volt
- Breakdown Voltage: 6.1 Volt – 7.2 Volt @ 1 mA
- Low Capacitance (90 pF)
- ESD Protection Meeting IEC1000–4–2

Mechanical Characteristics

- Void Free, Transfer–Molded, Thermosetting Plastic Case
- Corrosion Resistant Finish, Easily Solderable
- Package Designed for Optimal Automated Board Assembly
- Small Package Size for High Density Applications

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Formerly a Division of Motorola
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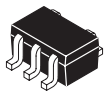
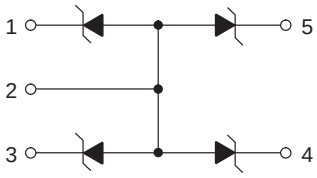


SC–88A / SOT–353
CASE 419A



ORDERING INFORMATION

Device marking and ordering information for this device have not yet been established.

THERMAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Value	Unit
Peak Power Dissipation @ 20 μs @$T_A \le$ 25°C	P_{pk}	150	Watts
Maximum Junction Temperature	T_{Jmax}	150	°C
Operating Junction and Storage Temperature Range	T_J T_{stg}	–55 to +150	°C

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Parameter		Symbol	Value	Unit
ESD Discharge	MIL STD 883C – Method 3015–6 IEC1000–4–2, Air Discharge IEC1000–4–2, Contact Discharge	V_{PP}	25 16 9	kV
Peak Pulse Power (8/20 μs)		P_{PP}	150	W
Lead Solder Temperature (10 seconds duration)		T_L	260	°C

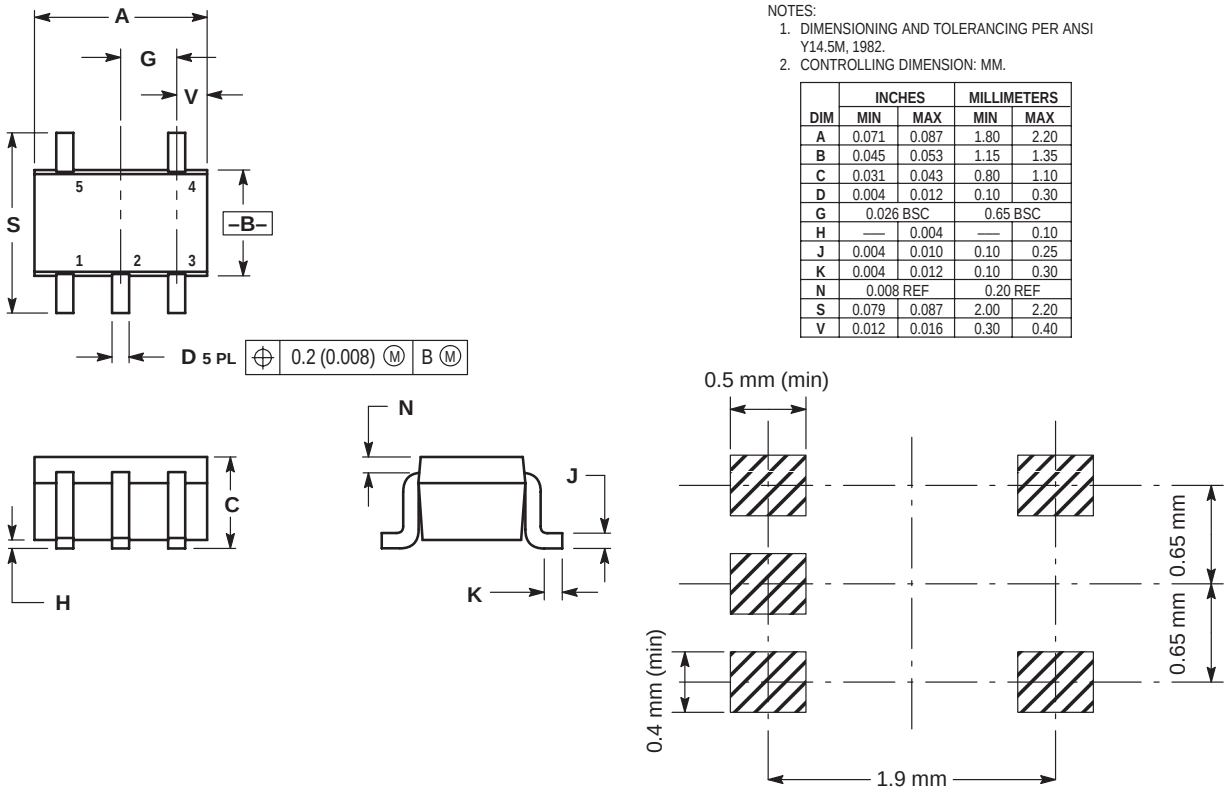
	Breakdown Voltage V_{BR} @ 1 mA (Volts)			Leakage Current I_{RM} @ V_{RM} = 3 V	Capacitance @ 0 V Bias	Max V_F @ I_F = 200 mA
Device	**Min**	**Nom**	**Max**	**(μA)**	**(pF)**	**(V)**
MSQA6V1W5	6.1	6.6	7.2	1.0	90	1.25

This document contains information on a product under development. ON Semiconductor reserves the right to change or discontinue this product without notice.

MSQA6V1W5

PACKAGE DIMENSIONS

SC–88A / SOT–353
DF SUFFIX
5–LEAD PACKAGE
CASE 419A–01
ISSUE B



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MM.

	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	—	0.004	—	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20
V	0.012	0.016	0.30	0.40

PUBLICATION ORDERING INFORMATION

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