

Transient Voltage Suppressors Array for ESD Protection
FEATURES

- 350 watts peak pulse power ($t_p = 8/20\mu s$)
- Unidirectional & Bidirectional Configurations
- Working Voltages: 3.3V, 5V, 12V, 15V, 24V and 36V
- Low clamping voltages
- Low Leakage Current
- Response Time is Typically $< 1\text{ ns}$

MECHANICAL DATA

- Case : Molded plastic, SOT-23
- Polarity : Shown follows
- Terminals : Plated terminals, solderable per MIL-STD-750, Method 2026
- Epoxy : UL94-V0 rated flame retardant

APPLICATIONS

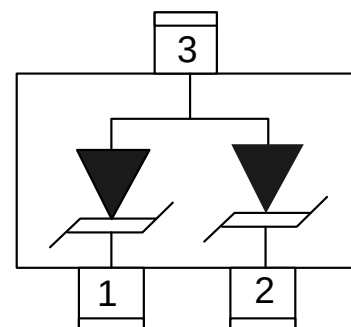
- Computers and peripherals
- Digital Cameras
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics
- Other electronics equipments communication systems

IEC COMPATIBILITY

- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

SOT-23	PACKAGE
Part No.	Marking
ESD03M2T	3M2
ESD05M2T	5M2
ESD12M2T	AM2
ESD15M2T	BM2
ESD24M2T	CM2
ESD36M2T	DM2

Ex : ESD03M2T

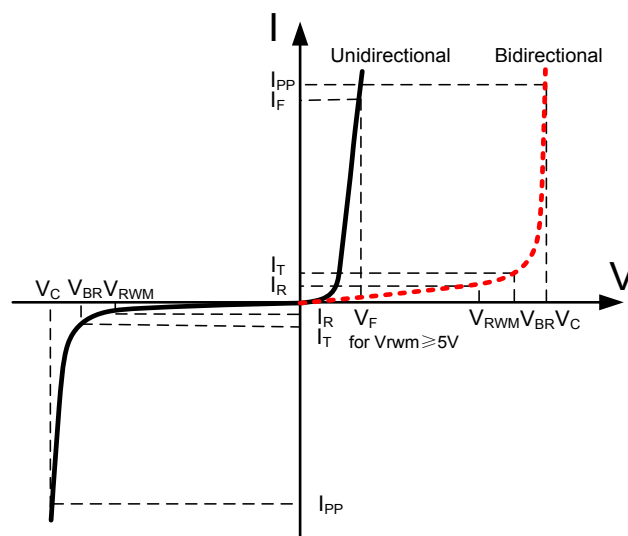

SCHEMATIC & PIN CONFIGURATION


Transient Voltage Suppressors Array for ESD Protection
Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	350	Watts
Lead Soldering Temperature	T_L	260(10sec)	°C
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°C)

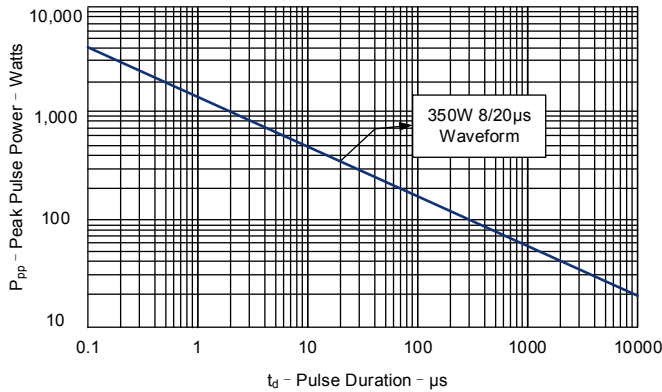
Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F


Electrical Characteristics

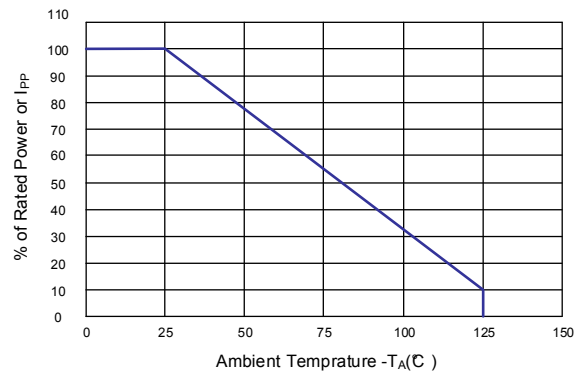
Part Number	Reverse Stand off Voltage V_{RWM} (Volts)	Minimum Breakdown Voltage $V_{BR@1mA}$ (Volts)	Maximum Peak Pulse Current I_{PP} (Amps)	Maximum Clamping Voltage $V_C @ I_{PP}$ (Volts)	Maximum Reverse Leakage $I_R @ V_{RWM}$ (μA)	Typical Capacitance DC=0V $C_J @ 1\text{ MHz}$ (pF)	Maximum Capacitance DC=0V $C_J @ 1\text{ MHz}$ (pF)	Marking Code
ESD03M2T	3.3	4.0	25	14	1	200	240	3M2
ESD05M2T	5	6.0	18	16.7	1	150	180	5M2
ESD12M2T	12	13.3	12	25	1	50	60	AM2
ESD15M2T	15	16.7	10	35	1	45	55	BM2
ESD24M2T	24	26.7	5	55	1	30	36	CM2
ESD36M2T	36	40	4	75	1	26	30	DM2

Typical Characteristics

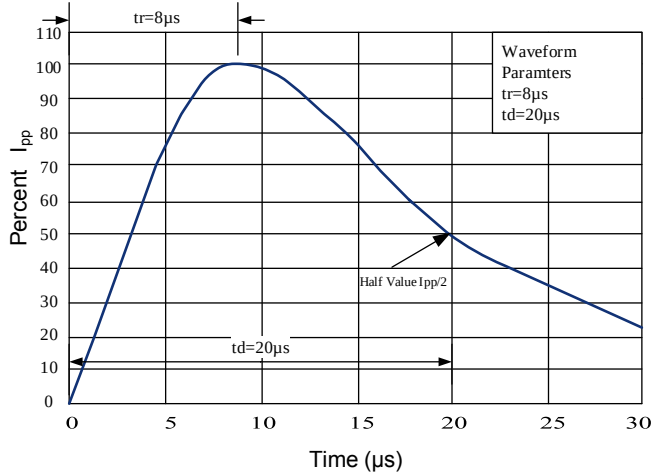
Peak Pulse Power vs. Pulse Time



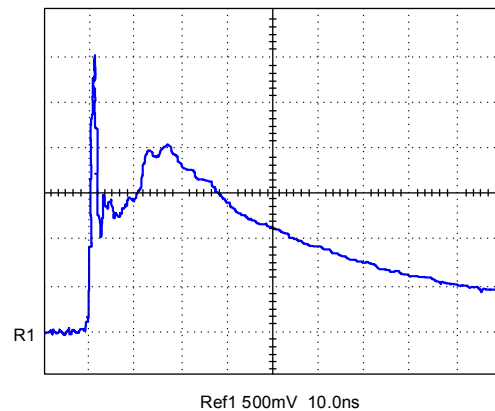
Power Derating Curve



Pulse Waveform



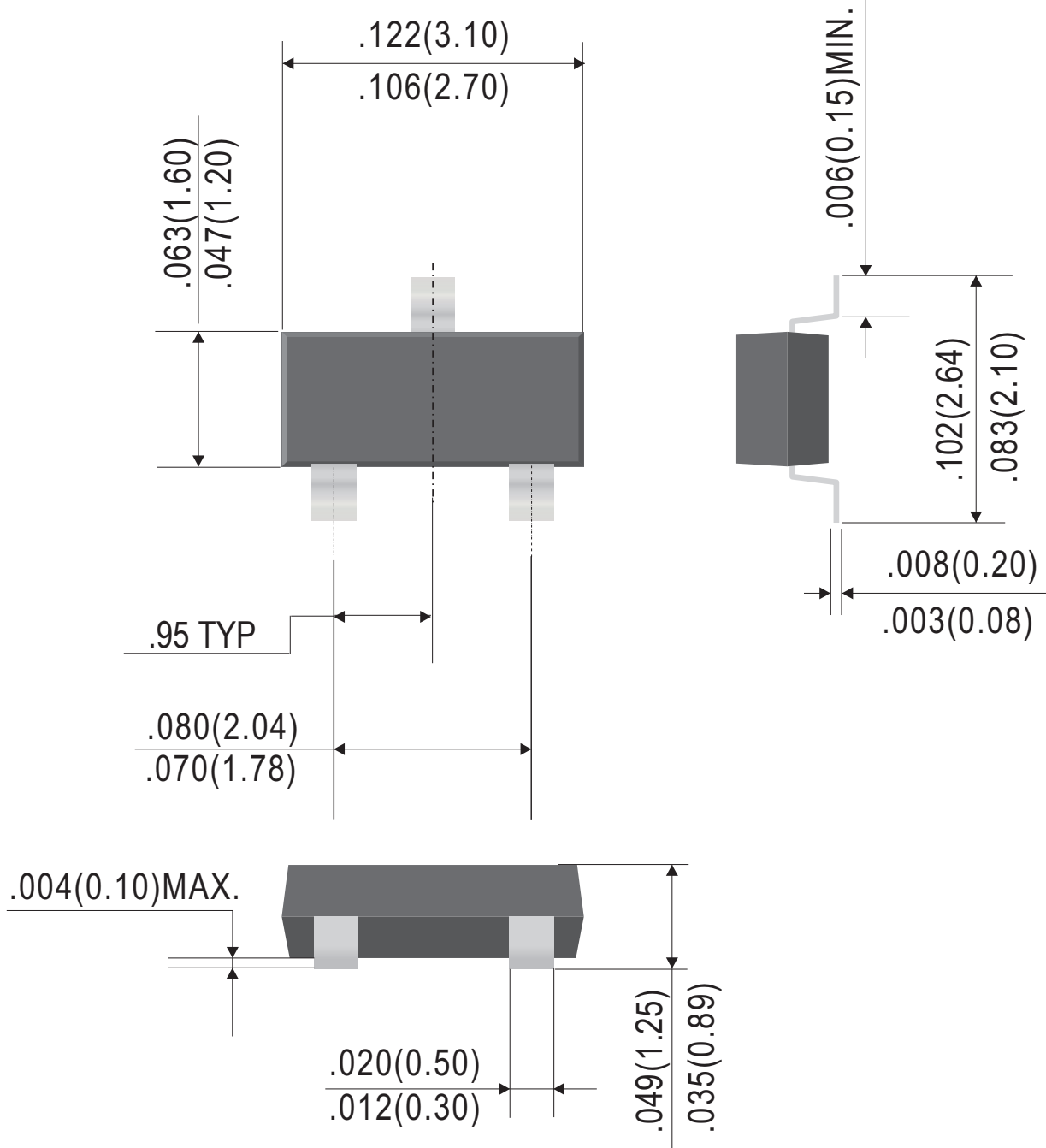
ESD Pulse Waveform (Per IEC 61000-4-2)





Outline Drawing

SOT-23



Dimensions in inches and (millimeters)

Rev.E

Ordering Information:

Device PN	Packing
Part Number -T ⁽¹⁾ H ⁽²⁾ -WS	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) Halogen free product for packing code suffix "H"

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