RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

TEPMxxC

Bidirectional TVS Diode Array

DESCRIPTION

The TEPMxxC Series isdesigned for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

This series has been specifically designed to protect sensitive components which are connected to power、data and transmission lines from overvoltage caused by ESD(electrostatic discharge), CDE (Cable Discharge Events),and EFT (electrical fast transients).

FEATURES

- ✧IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ✧IEC61000-4-4 (EFT) 40A (5/50ηs)
- ✧350 Watts Peak Pulse Power per (tp=8/20μs)
- ✧Protects two bidirectional lines
- ✧Low clamping voltage
- ✧Working voltages : 3.3V to 36V
- ✧Low leakage current

MACHANICAL DATA

- ✧SOT-23 package
- ✧Flammability Rating: UL 94V-0
- ✧Packaging: Tape and Reel
- ✧High temperature soldering guaranted:260℃/10s
- ✧Reel size: 7 inch
- ✧MSL 1

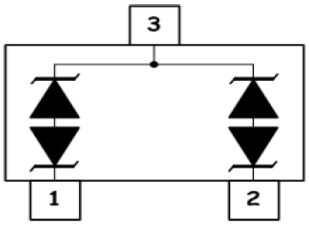
APPLICATIONS

- ✧Cell Phone Handsets and Accessories
- ✧Microprocessor based equipment
- ✧Personal Digital Assistants (PDA's)
- ✧Notebooks, Desktops, and Servers
- ✧Portable Instrumentation
- ✧Networking and Telecom
- ✧Serial and Parallel Ports.
- ✧Peripherals

ORDERING INFORMATION

- ✧Device:TEPMxxC
- ✧Package: SOT-23
- ✧Material: Halogen free
- ✧Packing: Tape & Reel
- ✧Quantity per reel: 3,000pcs

PIN CONFIGURATION



PACKAGE OUTLINE



2020-06/01
REV:D

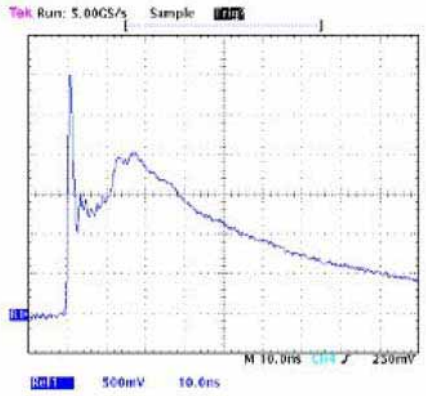
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	±15 ±8	kV
P_{PP}	Peak Pulse Power (8/20μs)	350	W
T_{OPT}	Operating Temperature	-55/+150	°C
T_{STG}	Storage Temperature	-55/+150	°C
T_L	Lead Soldering Temperature	260 (10 sec.)	°C

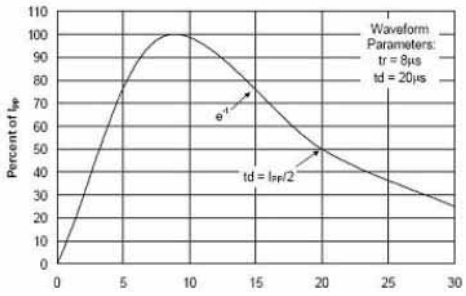
ELECTRICAL CHARACTERISTICS (Tamb=25°C)

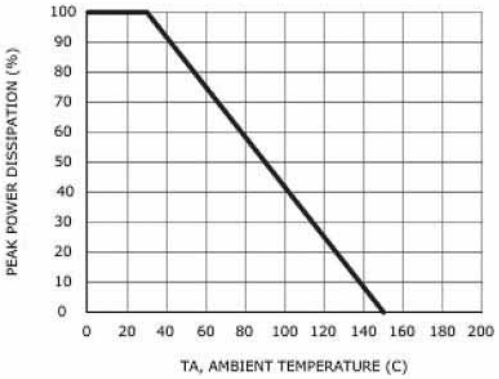
PART NUMBER	DEVICE MARKING	V_{RWM} (V) (max.)	V_B (V) (min.)	I_T (mA)	V_C@1A (V) (max.)	V_C (V) (max.)	(@A)	I_R (μA) (max.)	C_J (pF) (max.)
TEPM03C	C03	3.3	4.0	1	7.5	13.0	20	40	450
TEPM05C	C05	5.0	6.0	1	9.8	18.0	17	10	200
TEPM08C	C08	8.0	8.5	1	13.4	24.0	15	2	120
TEPM12C	C12	12.0	13.3	1	19.0	32.0	11	1	75
TEPM15C	C15	15.0	16.7	1	24.0	38.0	10	1	68
TEPM18C	C18	18.0	20.0	1	29.0	45.0	9	1	57
TEPM20C	C20	20.0	22.3	1	35.0	50.0	8	1	52
TEPM24C	C24	24.0	26.7	1	43.0	52.0	7	1	50
TEPM36C	C36	36.0	40.0	1	60.0	75.0	5	1	35

RATING AND CHARACTERISTICS CURVES (TEPMxxC)



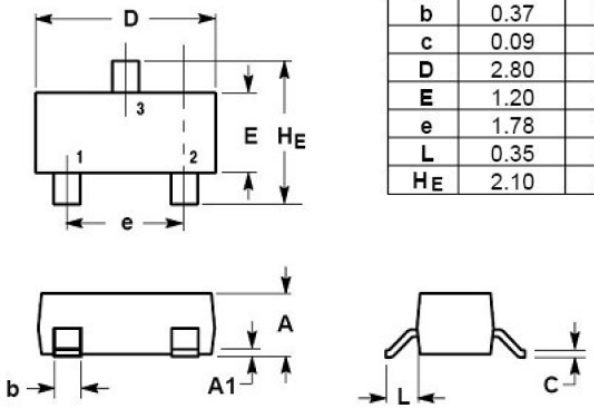
Pulse Waveform





Power Derating Curve

SOT-23 PACKAGE OUTLINE DIMENSIONS



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1.00	1.11	0.035	0.040	0.044
A1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.37	0.44	0.50	0.015	0.018	0.020
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.90	3.04	0.110	0.114	0.120
E	1.20	1.30	1.40	0.047	0.051	0.055
e	1.78	1.90	2.04	0.070	0.075	0.081
L	0.35	0.54	0.69	0.014	0.021	0.029
HE	2.10	2.40	2.64	0.083	0.094	0.104

PACKAGING OF DIODE

REEL PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOT-23/-3L	-T	3,000	---	---	178	438*438*220	180,000	---

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