

Ultra Low Capacitance TVS Array

DESCRIPTION

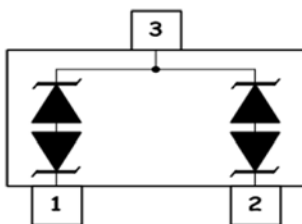
The TEPM24CM are ultralow capacitance transient voltage suppressor arrays. The TEPM24CM provide circuit protection for high-speed data transmission interfaces in wired and wireless computing and networking applications.

The TEPM24CM meet IEC 61000-4-2 (ESD), IEC 61000-4-4 (EFT) and IEC 61000-4-5 (Surge). The TEPM24CM offer an ultralow capacitance protection solution for circuits operating at high frequencies and faster edge rates, where insertion loss and signal integrity are serious concerns.

ORDERING INFORMATION

- ✧ Device: TEPM24CM
- ✧ Package: SOT-323
- ✧ Marking: C24
- ✧ Material: RoHS compliant & Halogen free
- ✧ Packing: Tape & Reel
- ✧ Quantity per reel: 3,000pcs

PIN CONFIGURATION



FEATURES

- ✧ Transient protection for high-speed data lines
 - IEC 61000-4-2 (ESD) ±30kV (Contact)
 - ±30kV (Air)
- ✧ IEC 61000-4-4 (EFT) 40A (5/50 ns)
- ✧ Protects tow I/O lines
- ✧ Working voltages: 24V
- ✧ Low clamping voltage
- ✧ Low leakage current
- ✧ Response time is < 1 ns

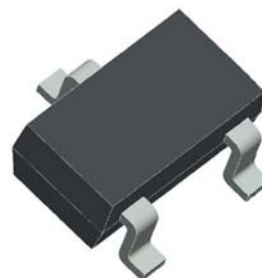
MACHANICAL DATA

- ✧ SOT-323 package
- ✧ Flammability Rating: UL 94V-0
- ✧ Packaging: Tape and Reel
- ✧ High temperature soldering guaranteed:
 - 260°C/10s
- ✧ Reel size: 7 inch
- ✧ MSL1

APPLICATIONS

- ✧ High-Speed Data Transmission Interfaces
- ✧ Cellular Phones
- ✧ Portable Electronics
- ✧ Wireless Bus Protection

PACKAGE OUTLINE



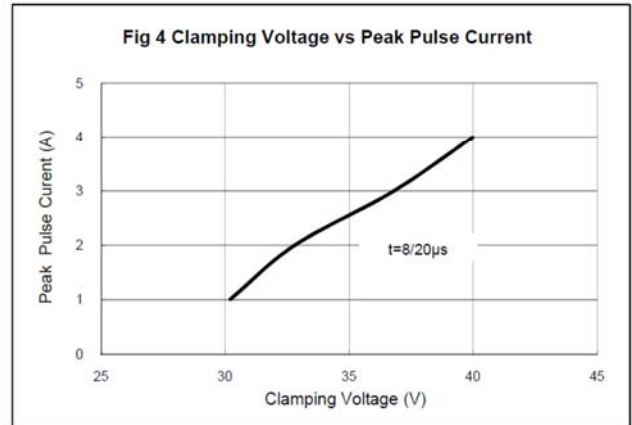
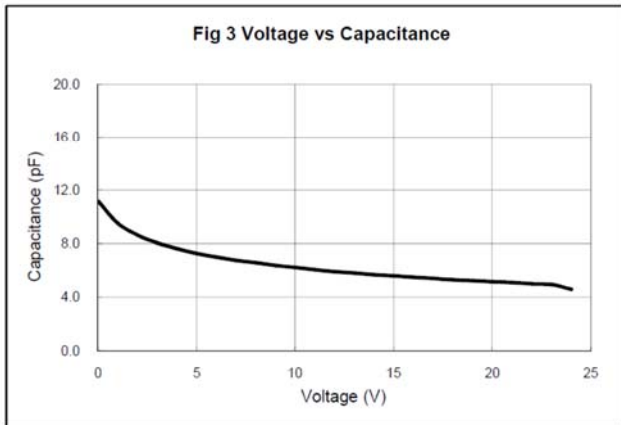
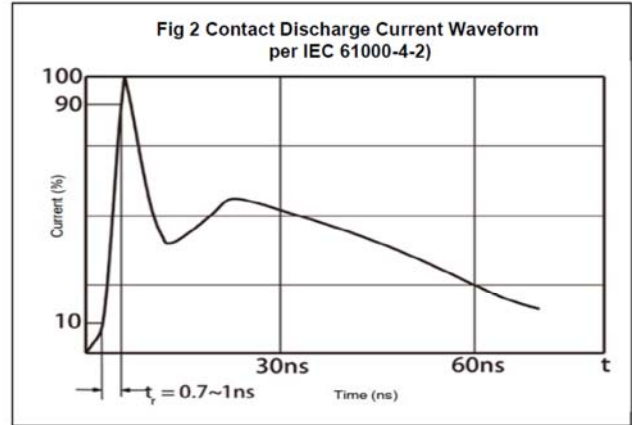
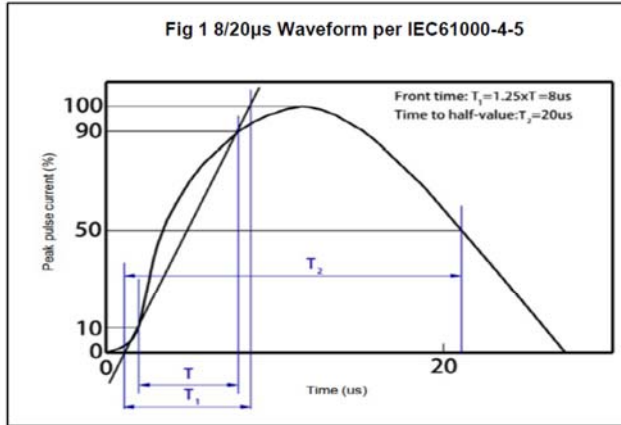
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Contact)	± 30	kV
	ESD per IEC 61000-4-2 (Air)	± 30	
P_{PP}	Peak Pulse Power (8/20 μ s)	200	W
T_{OPT}	Operating Temperature	-55/+150	$^{\circ}$ C
T_{STG}	Storage Temperature	-55/+150	$^{\circ}$ C
T_L	Lead Soldering Temperature	260	$^{\circ}$ C

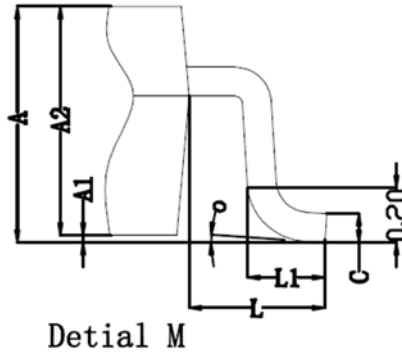
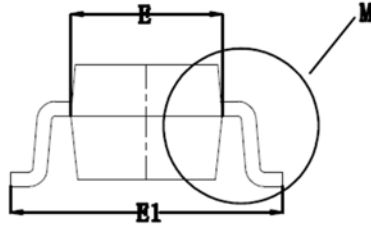
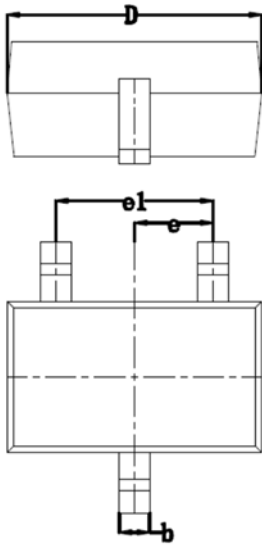
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}$ C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				24	V
V_B	Reverse Breakdown Voltage	$I_R = 1\text{mA}$	26.7			V
I_R	Reverse Leakage Current	$V_{RWM} = 24\text{V}$			1	μ A
V_{C1}	Clamping Voltage 1	$I_{PP} = 1\text{A}$, $t_p = 8/20\mu\text{s}$			43	V
V_{C2}	Clamping Voltage 2	$I_{PP} = 4\text{A}$, $t_p = 8/20\mu\text{s}$			50	V
C_{ESD}	Parasitic Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$		12	18	pF

RATING AND CHARACTERISTIC CURVES (TEPM24CM)



SOT-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dim in mm		
	Min	Nom	Max
A	0.900	1.000	1.100
A1	0.000	0.050	0.100
A2	0.900	0.950	1.000
b	0.200	0.300	0.400
c	0.080	0.115	0.150
D	1.900	2.050	2.200
E	1.150	1.250	1.350
E1	2.000	2.200	2.400
e	0.650TYP		
e1	1.200	1.300	1.400
L	0.525REF		
L1	0.260	0.360	0.460
o	0°	4°	8°

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