RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

TEP1501M

Unidirectional TVS Diodes

DESCRIPTION

The TEP1501M is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its small size, it is suited for use in cellular phones, portable devices, digital cameras, power supplies and many other portable applications.

FEATURES

✧Transient protection for high-speed data lines
IEC 61000-4-2 (ESD) ±30kV (Contact)
±30kV (Air)
✧Ultra-small package (1.0mm×0.6mm×0.5mm)
✧Low clamping voltage
✧Working voltages : 15V
✧Low leakage current

MACHANICAL DATA

✧DFN1006 package
✧Flammability Rating: UL 94V-0
✧Packaging: Tape and Reel
✧High temperature soldering guaranteed: 260℃/10s
✧Packaging: Tape and Reel
✧Reel size: 7 inch

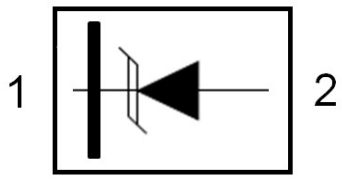
ORDERING INFORMATION

✧ Device: TEP1501M
✧Package: DFN1006
✧Marking: 15Q
✧Material: Halogen free
✧Packing: Tape & Reel
✧Quantity per reel: 10,000pcs

APPLICATIONS

✧Cell Phone Handsets and Accessories
✧Microprocessor based equipment
✧Personal Digital Assistants (PDA's)
✧Notebooks, Desktops, and Servers
✧Portable Instrumentation
✧Peripherals
✧LED bypass

PIN CONFIGURATION



PACKAGE OUTLINE

2023-09/01
REV:O

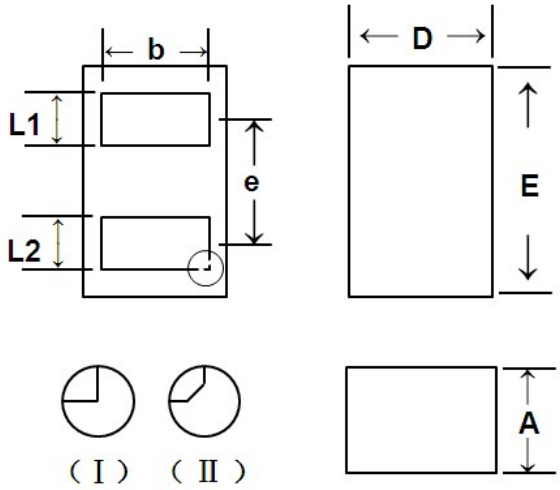
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Contact) ESD per IEC 61000-4-2 (Air)	±30 ±30	kV
P_{PP}	Peak Pulse Power (8/20μs)	280	W
T_{OPT}	Operating Temperature	-55~125	°C
T_{STG}	Storage Temperature	-55~150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25 °C)

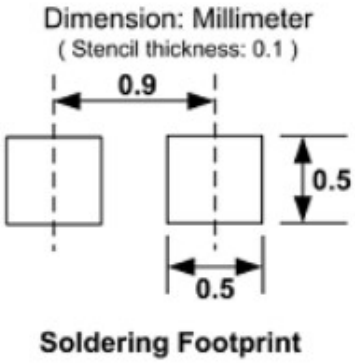
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				15	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	16	18	19	V
I_R	Reverse Leakage Current	V_{RWM} = 15V		1.0	100	nA
V_C	Clamping Voltage	I_{PP} = 8A, t_p = 8/20μs		28	35	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz		35	45	pF

DFN1006 PACKAGE OUTLINE DIMENSIONS



NOTE:ALL DIMENSIONS IN MM

	MIN	NOM	MAX
D	0.55	0.60	0.65
E	0.95	1.00	1.05
L1	0.20	0.25	0.30
L2	0.20	0.25	0.30
A	0.45	0.50	0.55
b	0.45	0.50	0.55
e		0.64BSC	



Soldering Footprint

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