

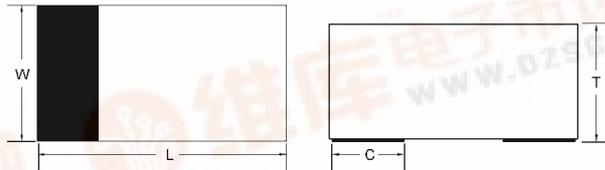
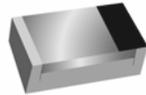
Preliminary



# TESDE5V0 ~ TESDE36V

## SMD ESD Protection Diode

**0503**



### Features

- ✧ (16kV) ICE61000-4-2 rating.
- ✧ Surface mount package.
- ✧ High Current density.

### Mechanical Data

- ✧ Cases: 0503 standard package, molded plastic
- ✧ Terminals: Gold plated, solderable per MIL-STD-750, method 2026,
- ✧ Marking Code:
  - TESDE5V0: E05
  - TESDE12V: E12
  - TESDE24V: E24
  - TESDE36V: E36
- ✧ Mounting position: Any
- ✧ Weight: 0.002 gram (approximately)

Item	0503
L	0.053(1.35) 0.045(1.15)
W	0.034(0.85) 0.026(0.65)
T	0.030(0.75) 0.024(0.60)
C	0.016(0.40) Typical
D	0.022(0.55) Typical

Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number	Symbol	Min.	Typ	Max.	Units
Diode Breakdown Voltage	V <sub>BD</sub>	5.1	7.0		V
TESDE5V0		14	17		
TESDE12V IF=1mA		25	28		
TESDE24V		38	40		
Leakage Current	I <sub>L</sub>		±0.1	±2.0	µA
Capacitance	C <sub>J</sub>		15	20	pF
		TESDE5V0 5V	12	—	
		TESDE12V 12V @ 1MHz	10	—	
		TESDE24V 24V	5	—	
Channel Clamp Voltage	V <sub>ESD</sub>			±7.0 ±17 ±25 ±40	V
Peak ESD Voltage Capability	V <sub>PV</sub>			16	KV
Peak Pulse Current	I <sub>PP</sub> *			5.1 15 15 15	A
Package Power	P			100	mW

\* One diode conducting



## RATING AND CHARACTERISTIC CURVES (TESDE5V0 SERIES)

Fig. 1 - 8/20us Peak pulse current wave form acc. IEC 61000-4-5

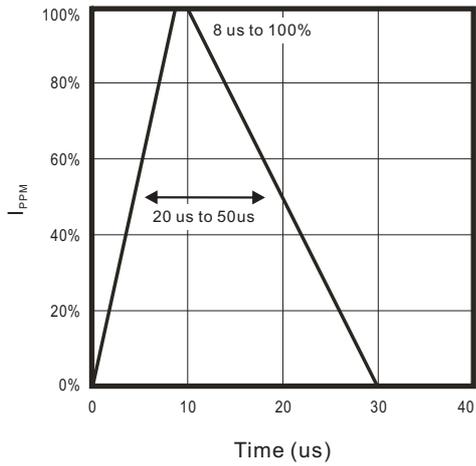


Fig. 2 - Reverse characteristics

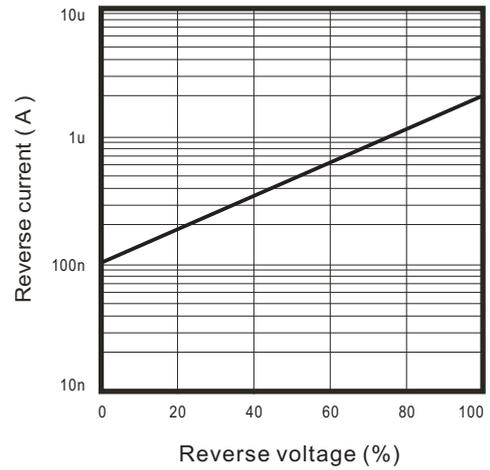


Fig. 3 - Capacitance between terminals characteristics

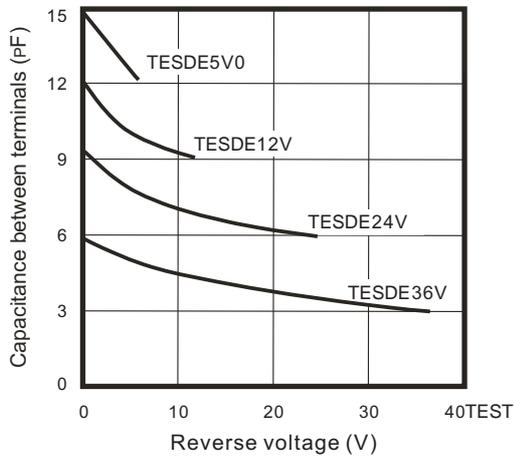


Fig. 4 - Power rating derating curve

