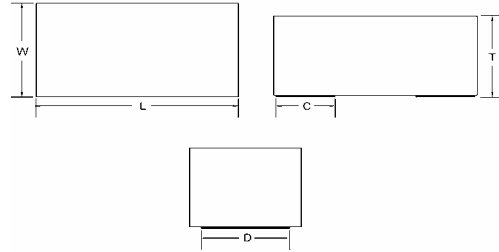
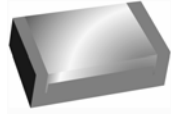


TESDU5V0 ~ TESDU24V

Bi-directional ESD Protection Diode with Ultra Low Clamping Voltage

0603



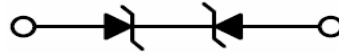
Features

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

Mechanical Data

- ✧ Cases: 0603 standard package, molded plastic
- ✧ Terminals: Gold plated, solderable per MIL-STD-750, method 2026,
- ✧ Marking Code:
 - TESDU5V0: E05
 - TESDU12V: E12
 - TESDU24V: E24
- ✧ Mounting position: Any
- ✧ Weight: 0.003 gram (approximately)

Item	0603	Item	0603
L	0.071(1.80) 0.063(1.60)	C	0.018(0.45) Typical
W	0.039(1.00) 0.031(0.80)	D	0.028(0.70) Typical
T	0.033(0.85) 0.027(0.70)		



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 TESDU5V0 TESDU12V $I_F=1\text{mA}$ TESDU24V	V_{BD}	5.1 14 25	7.0 17 28		V
Leakage Current TESDU5V0 5V TESDU12V 12V TESDU24V 24V	I_L		±0.1	±2.0	uA
Capacitance TESDU5V0 TESDU12V @ f=1MHz TESDU24V	C_J		15 12 10	20 — —	pF
Channel Clamp Voltage TESDU5V0 TESDU12V @ 8KV event TESDU24V	V_{ESD}			±7.0 ±17.0 ±25.0	V
Peak ESD Voltage Capability TESDU5V0 TESDU12V IEC61000-4-2 TESDU24V	V_{PV}			16	KV
Peak Pulse Current TESDU5V0 TESDU12V 8 / 20 us TESDU24V	I_{PP}^*			5.1 15 15	A
Package Power TESDU5V0 TESDU12V TESDU24V	P			100	mW

* One diode conducting

RATING AND CHARACTERISTIC CURVES (TESDU5V0 SERIES)

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

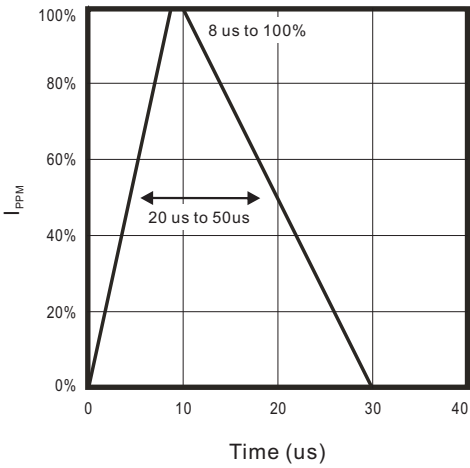


Fig. 2 - Reverse characteristics

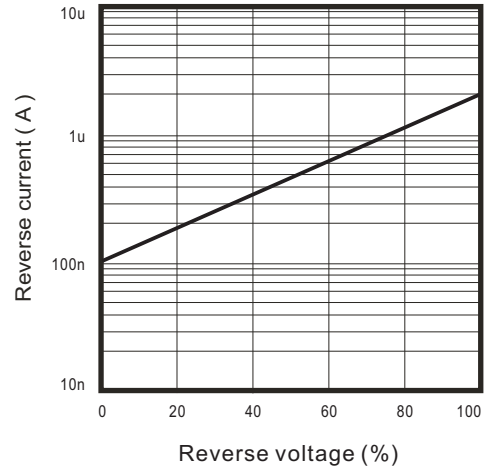


Fig. 3 - Capacitance between terminals characteristics

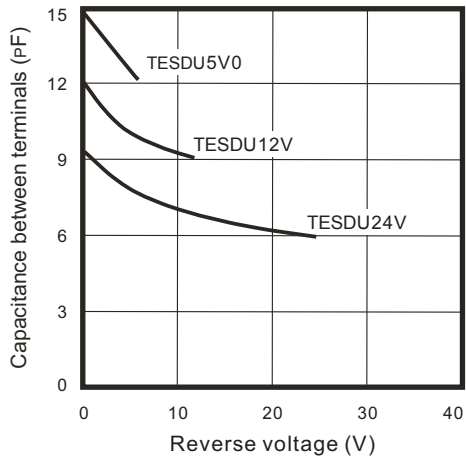


Fig. 4 - Power rating derating curve

