

72W SMD UNI-DIRECTIONAL TVS FOR ESD PROTECTION DIODE, 3.3V

Top View Dimensions:
 Width: 0.041(1.05) / 0.037(0.95)
 Height: 0.026(0.65) / 0.022(0.55)

Side View Dimensions:
 Lead Width: 0.0138(0.35) Typ.
 Lead Height: 0.012(0.30) Typ.

Bottom View Dimensions:
 Lead Spacing: 0.0177(0.45) Typ.
 Lead Height: 0.022(0.55) / 0.018(0.45)

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION 94V-0
2. GOLD PLATED TERMINALS
3. ESD (HUMAN BODY MODEL) >16KV
4. IEC COMPATIBILITY:
 IEC61000-4-2 (ESD) ±20KV (AIR), ±15KV (CONTACT)
 IEC61000-4-4 (EFT) 80A (5/50nS)
 IEC61000-4-5 (LIGHTNING) 6A (8/20µS)
5. LOW LEAKAGE CURRENT
6. CASE: TRANSFER MOLDED, 0402 SIZE
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. LEADS: SOLDERABILITY PER MIL-STD-750 METHOD 2026
9. WEIGHT: 0.001 GRAMS
10. RoHS COMPLIANT, ADD SUFFIX "H" FOR HALOGEN FREE
 i.e. ESD9FN3.3-H: RoHS COMPLIANT/HALOGEN FREE

ELECTRICAL CHARACTERISTICS

MAXIMUM RATINGS (T_A =25°C UNLESS OTHERWISE NOTED) AND ELECTRICAL CHARACTERISTICS

RATING	SYMBOL	UNITS
PEAK PULSE POWER, tp=8/20 µS	P _{PP}	72 W
STORAGE TEMPERATURE RANGE	T _{STG}	- 55 TO +150 °C
OPERATING JUNCTION TEMPERATURE RANGE	T _J	- 55 TO +125 °C

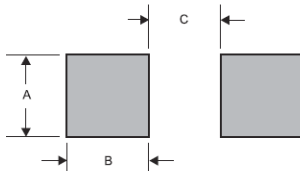
PART NUMBER	Max. V _{RWM} (V)	Max I _R @ V _{RWM} (µA)	Min V _{BR} @ I _T =1mA (A)	Max V _C @ I _{PP} =6A (V)	Max I _{PP} (A)	TYP. C _J (pF)	MARKING
ESD9FN3.3	3.3	3	5	12	6	45	Z

NOTE : 1. SURGE CURRENT WAVEFORM PER FIG 1.

2. V_{BR} IS MEASURED WITH A PULSE TEST CURRENT I_T AT 25°C AMBIENT TEMP

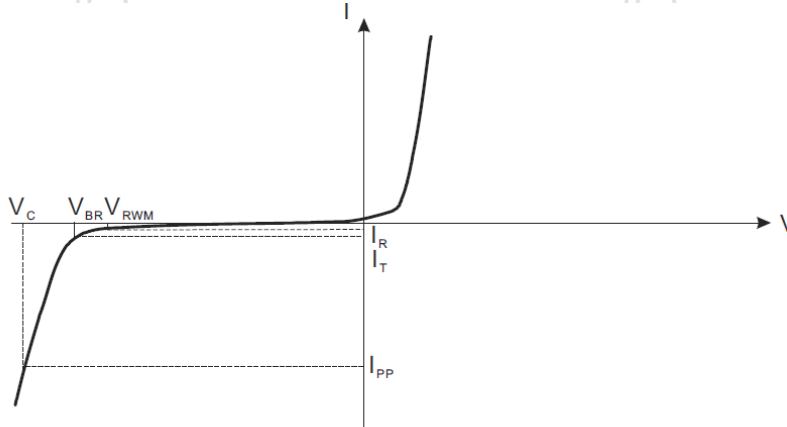
3. UNLESS SPECIFIED OTHERWISE, THE ELECTRICAL TEST IS PERFORMED AT T_A=25°C, V_F=1.2V@I_F=10mA

LAYOUT RECOMMENDATION



PACKAGE	A	B	C
0402	0.028 (0.70)	0.020 (0.50)	0.010 (0.25)

RATINGS AND CHARACTERISTIC CURVES



Uni-Directional TVS

- V_C : Clamping Voltage @ I_{PP}
- I_{PP} : Maximum Reverse Peak Pulse Current
- V_{RWM} : Maximum Working Peak Reverse voltage
- I_R : Maximum Reverse Leakage Current @ V_{RWM}
- V_{BR} : Breakdown voltage @ I_T
- I_T : Test Current
- P_{PP} : Peak Pulse Power
- C_j : Max. Capacitance @ $V_R = 0V$ and $f = 1MHz$

FIG.1- 8 X 20us PULSE WAVEFORM

FIG.2- POWER RATING DERATING CURVE

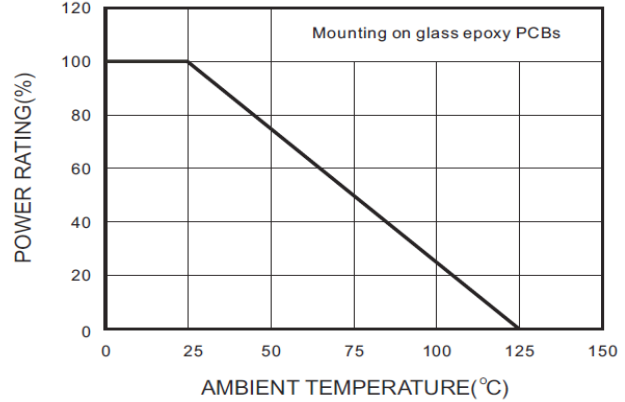
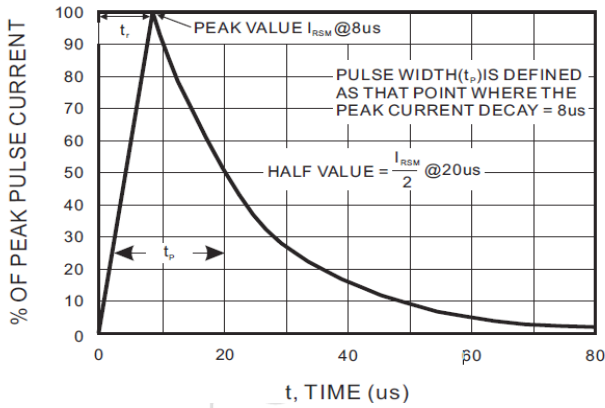


FIG.3- TERMINALS CHARACTERISTICS

