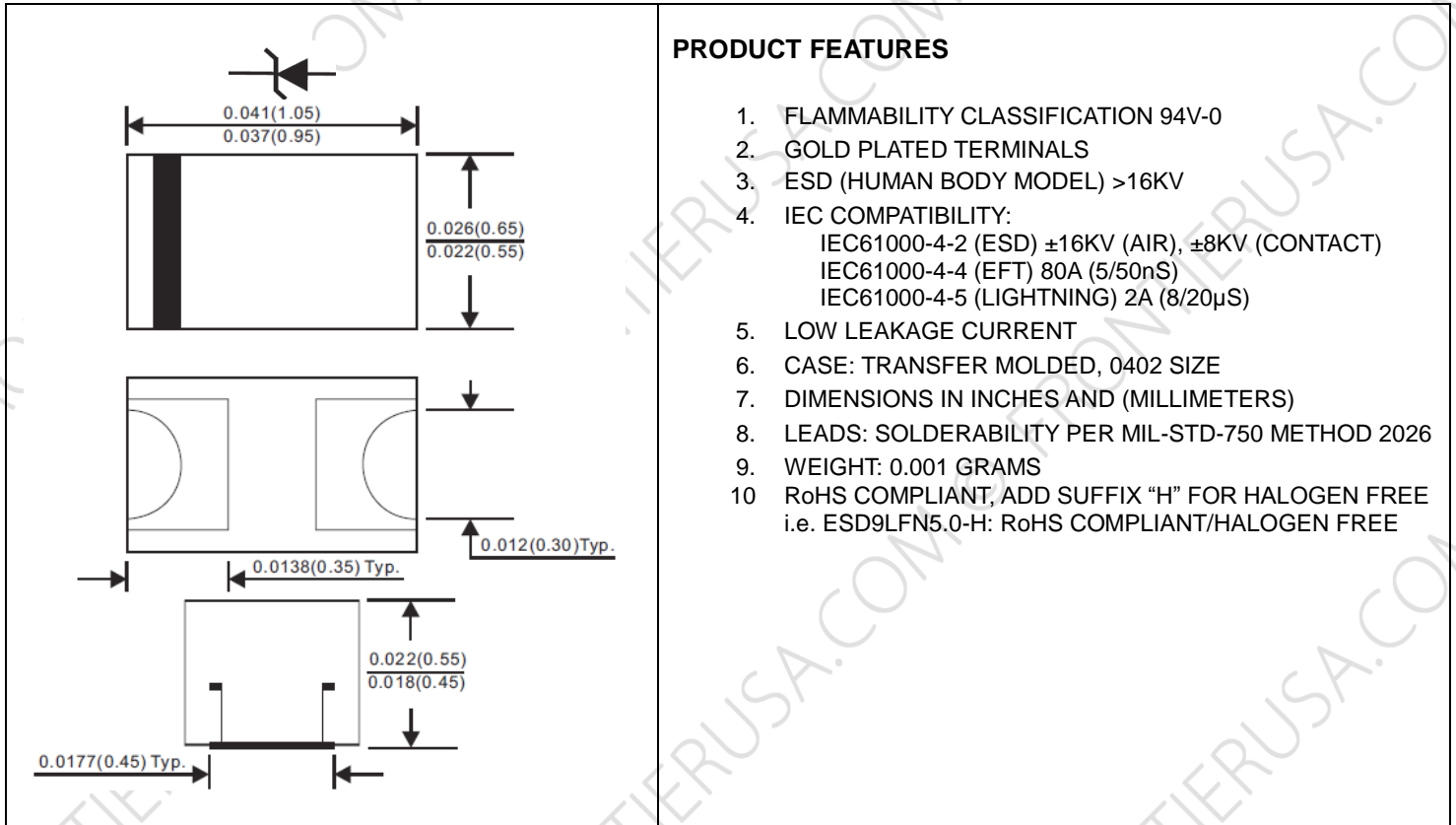


40W SMD UNI-DIRECTIONAL TVS FOR ESD PROTECTION DIODE, 5V



ELECTRICAL CHARACTERISTICS

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED) AND ELECTRICAL CHARACTERISTICS

RATING	SYMBOL	UNITS
PEAK PULSE POWER, $t_p=8/20 \mu\text{s}$	P_{PP}	40 W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO +150 $^\circ\text{C}$
OPERATING JUNCTION TEMPERATURE RANGE	T_J	- 55 TO +125 $^\circ\text{C}$

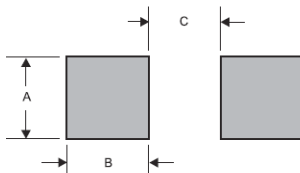
PART NUMBER	Max. V_{RWM} (V)	Max I_R @ V_{RWM} (μA)	Min V_{BR} @ $I_T=1\text{mA}$ (A)	Max V_C @ $I_{PP}=2\text{A}$ (V)	Max I_{PP} (A)	Max C_J (pF)	MARKING
ESD9LFN5.0	5	2	6	20	2	0.8	P

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

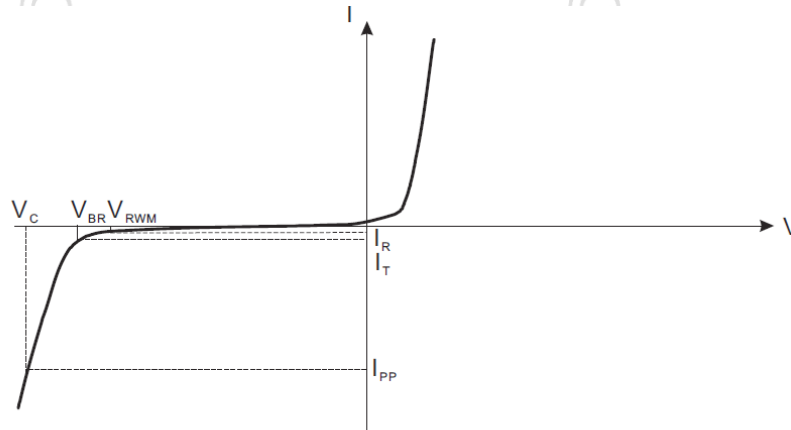
3. UNLESS SPECIFIED OTHERWISE, THE ELECTRICAL TEST IS PERFORMED AT $T_A=25^\circ\text{C}$, $V_F=1.2\text{V}$ @ $I_F=15\text{mA}$

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

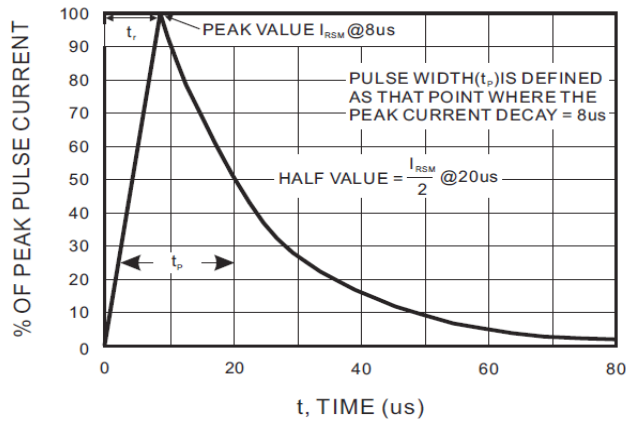


FIG.2- CLAMPING VOLTAGE VS. PEAK PULSE CURRENT

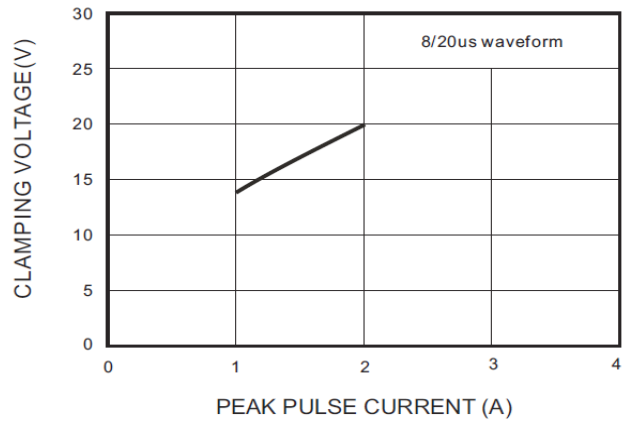


FIG.3- POWER RATING DERATING CURVE

