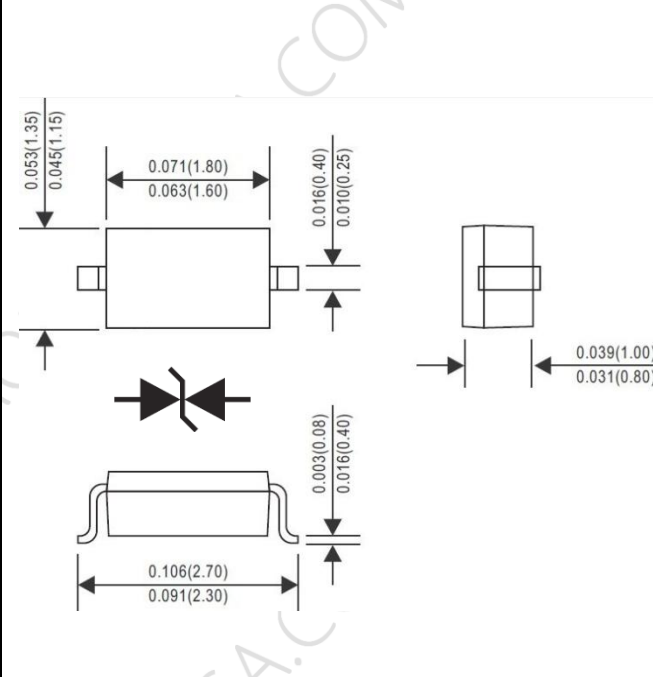


SMD LOW CAPACITANCE BI-DIRECTIONAL TVS FOR ESD PROTECTION DIODES, 3.3V-24V



Dimensions (Inches / Millimeters):

- Top view: 0.053(1.35) / 0.045(1.15) height; 0.071(1.80) / 0.063(1.60) width; 0.016(0.40) / 0.010(0.25) lead height.
- Side view: 0.039(1.00) / 0.031(0.80) thickness.
- Bottom view: 0.106(2.70) / 0.091(2.30) width; 0.003(0.08) / 0.016(0.40) lead height.

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION 94V-0
2. LOW CLAMPING VOLTAGE
3. PROTECT ONE I/O LINE OR POWER LINE
4. IEC COMPATIBILITY:
 - IEC61000-4-2 (ESD) $\pm 15\text{KV}$ (AIR), $\pm 8\text{KV}$ (CONTACT)
 - IEC61000-4-4 (EFT) 40A (5/50nS)
 - IEC61000-4-5 (LIGHTNING) $>3\text{A}$ (8/20 μS)
5. LOW CAPACITANCE AND LEAKAGE CURRENT
6. CASE: TRANSFER MOLDED, SOD-323F
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. LEADS: SOLDERABILITY PER MIL-STD-750 METHOD 2026
9. WEIGHT: 0.005 GRAMS
10. RoHS COMPLIANT, ADD SUFFIX "H" FOR HALOGEN FREE
i.e. ESDA3L03C-H: RoHS COMPLIANT/HALOGEN FREE

ELECTRICAL CHARACTERISTICS

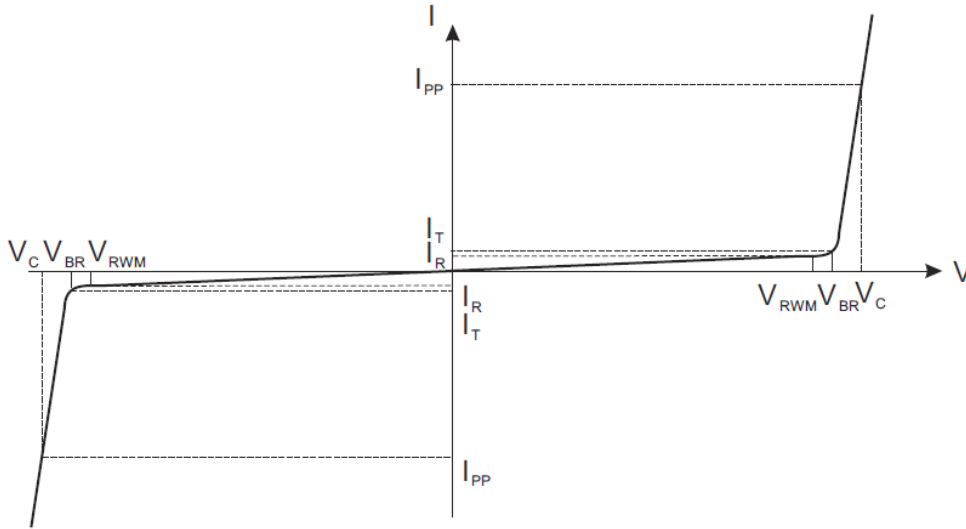
MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED) AND ELECTRICAL CHARACTERISTICS

RATING	SYMBOL		UNITS
PEAK PULSE POWER, $t_p=8/20 \mu\text{S}$	P_{PP}	350	W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO +150	$^\circ\text{C}$
OPERATING JUNCTION TEMPERATURE RANGE	T_J	- 55 TO +150	$^\circ\text{C}$

PART NUMBER	Max. V_{RWM} (V)	Max I_R @ V_{RWM} (μA)	Min V_{BR} @ $I_T=1\text{mA}$ (A)	Max V_C @ $I_{PP}=1\text{A}$ (V)	Max I_{PP} (A)	V_C @ Max I_{PP} (V) (NOTE 1)	MAX P_{PK} (W) (NOTE 1)	MAX C_J (pF)	MARKING
ESDA3L03C	3.3	40	4	7.5	8	13.9	111	1	CC
ESDA3L05C	5	5	6	9.8	8	18.3	146	1	AC
ESDA3L08C	8	2	8.5	13.4	8	18.5	148	1	BC
ESDA3L12C	12	1	13.3	19	6	28.6	172	1	DC
ESDA3L15C	15	1	16.7	24	5	31.8	159	1	EC
ESDA3L24C	24	1	26.7	43	3	56	168	1	HC

NOTE : 1. SURGE CURRENT WAVEFORM PER FIG.
2. V_{BR} IS MEASURED AT AMBIENT TEMPERATURE OF 25°C .

RATINGS AND CHARACTERISTIC CURVES



Bi-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 $f = 1MHz$

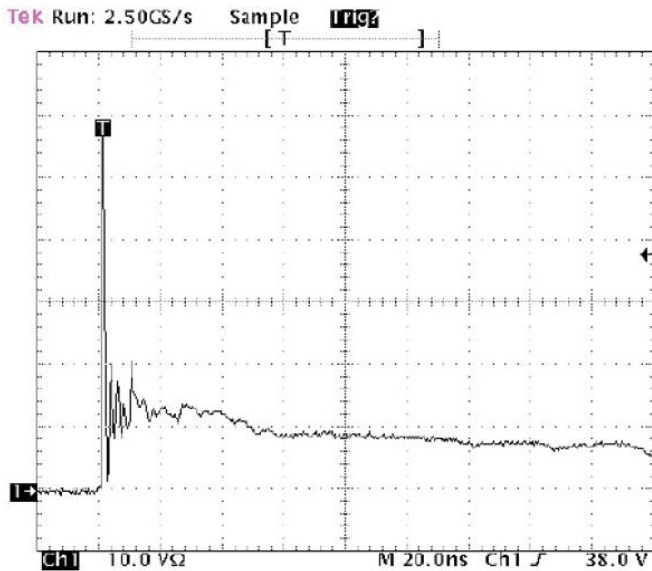


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

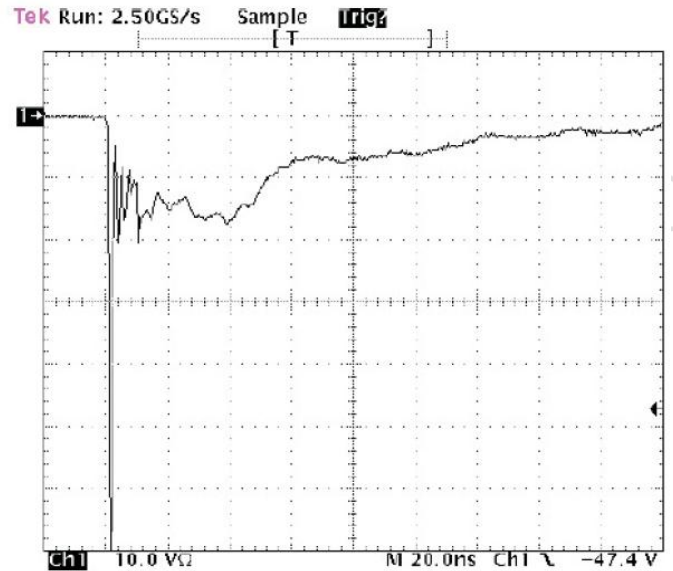
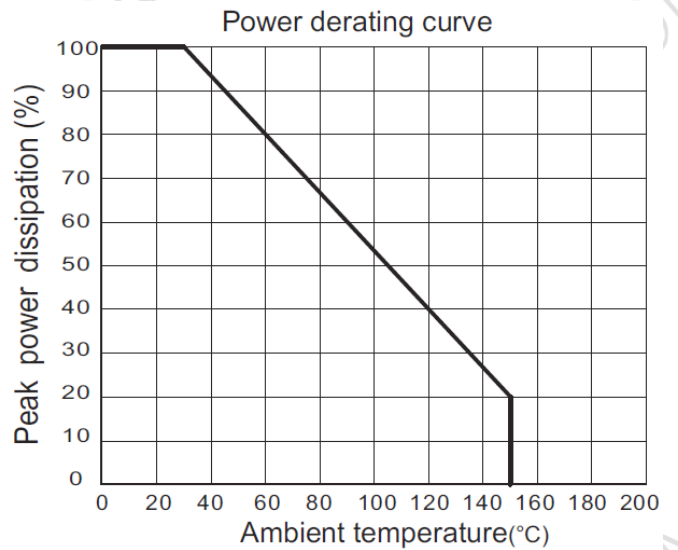
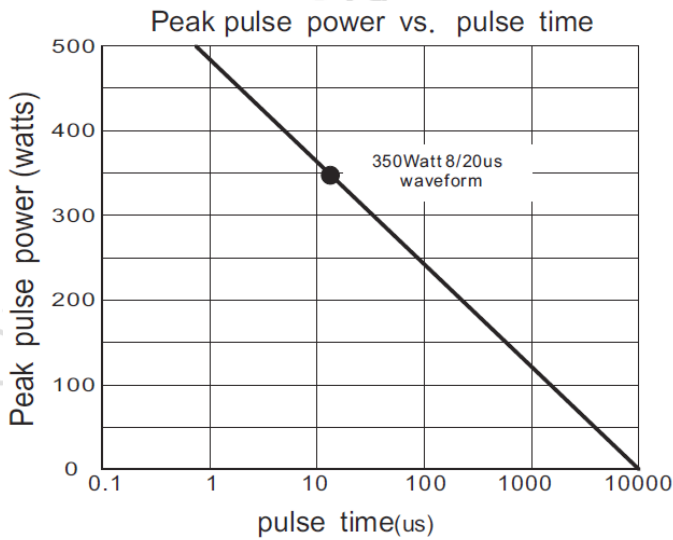
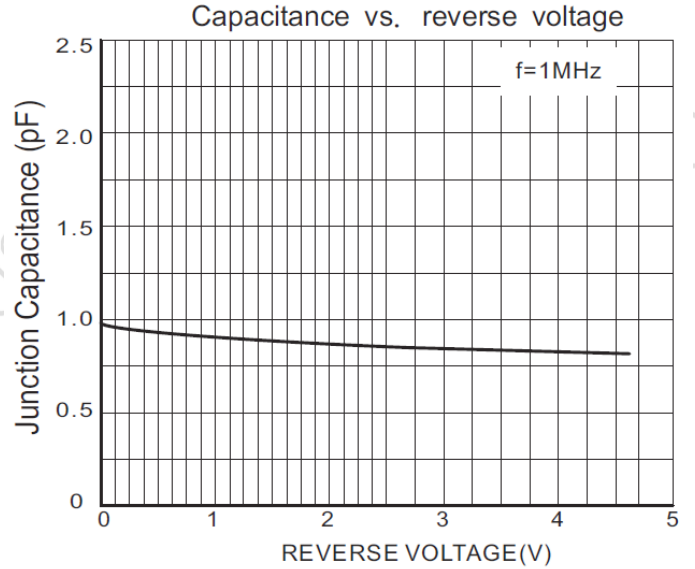
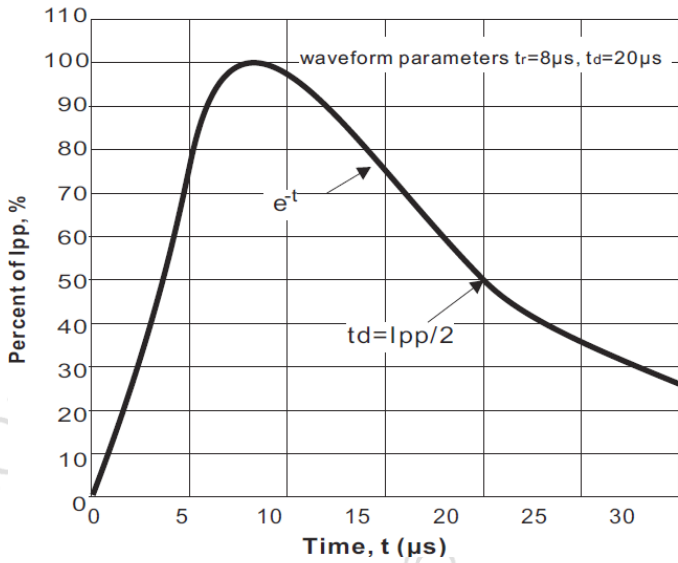
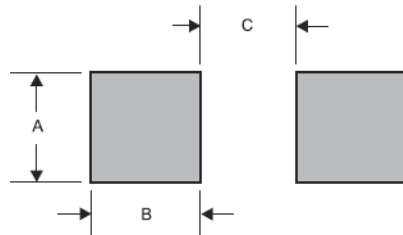


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2



LAYOUT RECOMMENDATION



PACKAGE	A	B	C
SOD-323F	0.033 (0.83)	0.025 (0.63)	0.063 (1.60)