

ICTE/MPTE series

ICTE/MPTE SERIES (1500 WATT) AXIAL TRANSIENT VOLTAGE SUPPRESSORS

The ICTE/MPTE series 1500 W transient suppressors are designed specifically for protection of CMOS, NMOS, BiMOS, and other integrated circuits available today for TTL, DTL, ECL, RTL, and linear functions. This series offers the lowest clamping voltages.

FEATURES

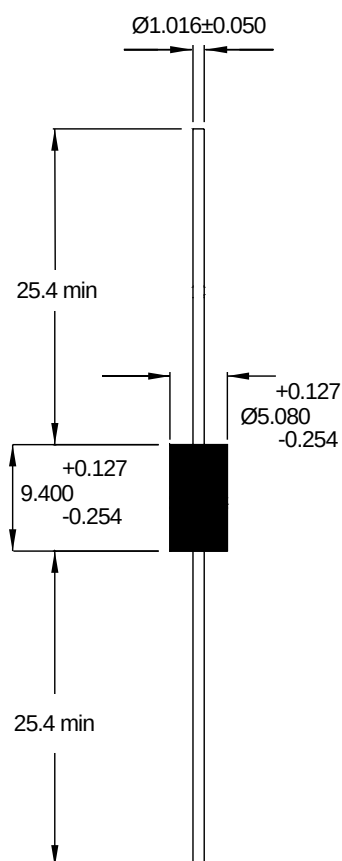
- Stand-off voltage Range 5 to 45 Volts
- Glass Passivated Junction
- Very low clamping voltages
- Uni-directional and Bi-directional
- 100% Surge tested

MAXIMUM RATING

- Peak Pulse Power (Ppk): 1500 Watts (10 X 1000µs)
(see diagram on page 6 for wave form)
- 5 Watt Steady State
- Response time: 1×10^{-12} seconds (theoretical)
- Forward surge rating: 200 Amps, 8.3ms half sine wave, (uni-directional devices only)
- Operating & storage temperature: -55°C to +150°C

MECHANICAL CHARACTERISTICS

- Case: DO-201AD; moulded plastic over glass passivated junction
- Terminals: Axial leads, solderable per MIL-STD-202 Method 208
- Solderable leads = 230°C for 10 seconds (1.59mm from case)
- Marking: cathode band (positive terminal, uni-directional devices only), device code, logo
- Weight: 1.5 grammes (approx)



All Dimensions in mm

ELECTRICAL CHARACTERISTICS @ Tamb 25°C

PART NUMBER	REVERSE STANDOFF VOLTAGE Vr (Volts)	MINIMUM BREAKDOWN VOLTAGE Vbr @ 1mA (Volts)	MAXIMUM REVERSE LEAKAGE Ir @ Vr (µA)	MAXIMUM CLAMPING VOLTAGE Vc @ Ipp1=1A (Volts)	MAXIMUM CLAMPING VOLTAGE Vc @ Ipp2=10A (Volts)	MAXIMUM PEAK PULSE CURRENT Ipp (A)
ICTE-5/MPTE-5*	5.0	6.0	300.0	7.1	7.5	160.0
ICTE-8/MPTE-8*	8.0	9.4	25.0	11.3	11.5	100.0
ICTE-10/MPTE-10	10.0	11.7	2.0	13.7	14.1	90.0
ICTE-12/MPTE-12	12.0	14.1	2.0	16.1	16.5	70.0
ICTE-15/MPTE-15	15.0	17.6	2.0	20.1	20.6	60.0
ICTE-18/MPTE-18*	18.0	21.2	2.0	24.2	25.2	50.0
ICTE-22/MPTE-22	22.0	25.9	2.0	29.8	32.0	40.0
ICTE-36/MPTE-36	36.0	42.4	2.0	50.6	54.3	23.0
ICTE-45/MPTE-45	45.0	52.9	2.0	63.3	70.0	19.0

Vf max = 3.5 Volts max at If = 50A 300 µS square wave pulse

ICTE-8C/MPTE-8C	8.0	9.4	50.0	11.4	11.6	100.0
ICTE-10C/MPTE-10C	10.0	11.7	2.0	14.1	14.5	90.0
ICTE-12C/MPTE-12C	12.0	14.1	2.0	16.7	17.1	70.0
ICTE-15C/MPTE-15C	15.0	17.6	2.0	20.8	21.4	60.0
ICTE-18C/MPTE-18C	18.0	21.2	2.0	24.8	25.5	50.0
ICTE-22C/MPTE-22C	22.0	25.9	2.0	30.8	32.0	40.0
ICTE-36C/MPTE-36C	36.0	42.4	2.0	50.6	54.3	23.0
ICTE-45C/MPTE-45C	45.0	52.9	2.0	63.3	70.0	19.0

ICTE-5 is not available in Bi-directional. Suffix 'C' denotes Bi-directional device. * Preferred voltages.

All products are sold to the commercial specifications shown, for any additional reliability testing or extended parameters, please consult the factory.

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Figure 1 - Peak Pulse Power Rating Curve

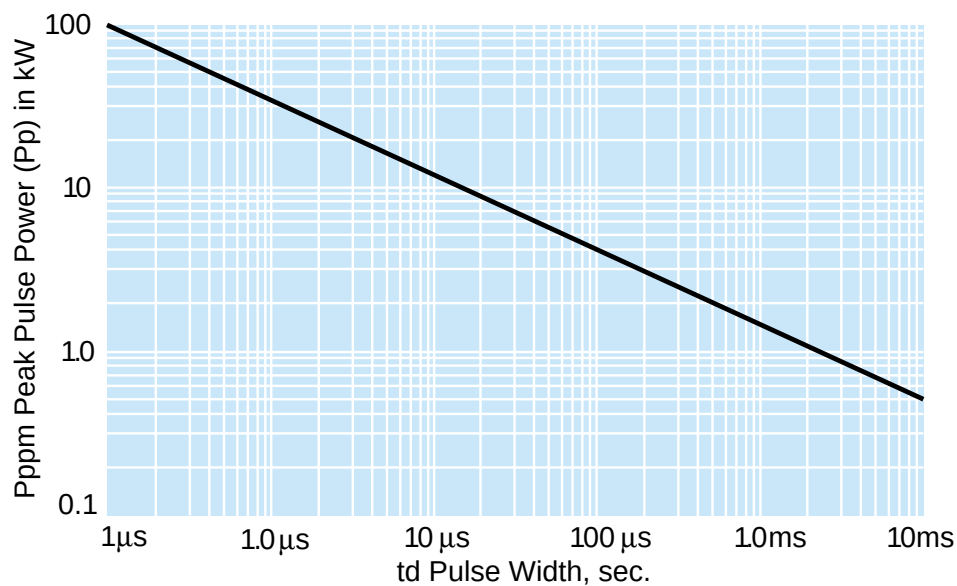
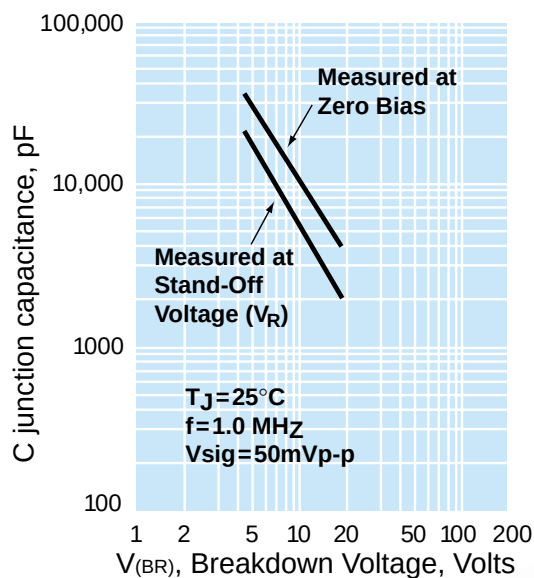


Figure 2 - Typical Junction Capacitance



ORDERING INFORMATION

ICTE or MPTE ☐ ☐ ☒ C

Voltage ☐ ☐ ☒

Bi Directional ☐ ☐ ☒

Packaging Option ☐ ☐ ☒

B = Bulk (500 pcs)

T = Tape & reeled (1500 pcs)