

ICTE-5-ICTE-45C series

ICTE SERIES (1500 WATT) AXIAL TRANSIENT VOLTAGE SUPPRESSORS

The ICTE series 1500 W transient suppressors is 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

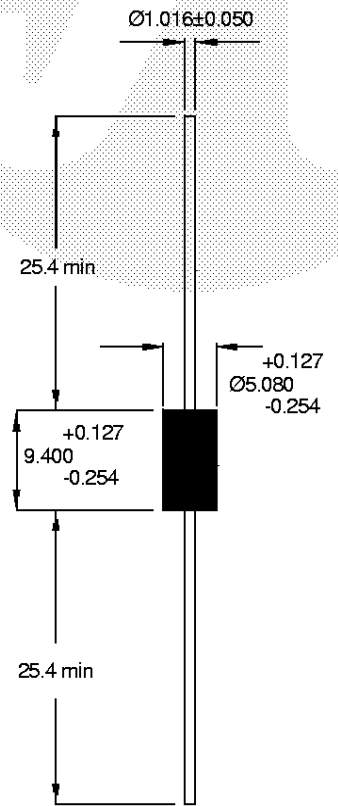
- ✧ Stand-off voltage Range 5 to 45 Volts
- ✧ Glass Passivated Junction
- ✧ Very low clamping voltages
- ✧ Uni-directional and Bi-directional
- ✧ 100% Surge tested

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 + 175°C

MECHANICAL CHARACTERISTICS

- ✧ Case: Moulded plastic over glass passivated junction
- ✧ Terminals: Axial leads, solderable per MIL-STD-202 Method 208
- ✧ Marking: cathode band (positive terminal, uni-directional devices only), device code, logo
- ✧ Weight: 1.5 grammes (approx)



All Dimensions in mm

ELECTRICAL CHARACTERISTICS @ 25°C

PART NUMBER	REVERSE STANDOFF VOLTAGE V_R (Volts)	MINIMUM BREAKDOWN VOLTAGE $V_{BR} @ 1mA$ (Volts)	MAXIMUM REVERSE LEAKAGE $I_R @ V_R$ (µA)	MAXIMUM CLAMPING VOLTAGE $V_C @ I_{PP1}=1A$ (Volts)	MAXIMUM CLAMPING VOLTAGE $V_C @ I_{PP2}=10A$ (Volts)	MAXIMUM PEAK PULSE CURRENT I_{PP} (A)
ICTE-5*	5.0*	6.0	300.0	7.1	7.5	160.0
ICTE-8	8.0	9.4	25.0	11.3	11.5	100.0
ICTE-10	10.0	11.7	2.0	13.7	14.1	90.0
ICTE-12	12.0	14.1	2.0	16.1	16.5	70.0
ICTE-15	15.0	17.6	2.0	20.1	20.6	60.0
ICTE-18	18.0	21.2	2.0	24.2	25.2	50.0
ICTE-22	22.0	25.9	2.0	29.8	32.0	40.0
ICTE-36	36.0	42.4	2.0	50.6	54.3	23.0
ICTE-45	45.0	52.9	2.0	63.3	70.0	19.0

V_F max = 3.5 Volts max at $I_F = 50A$ 300 µS square wave pulse

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

ORDERING INFORMATION

ICTE C

Voltage

Bi Directional

Packaging Option

B = Bulk (500 pcs)

T = Tape & reeled (1500 pcs)



ICTE-5 - ICTE-45C series

Figure 1 - Peak Pulse Power Rating Curve

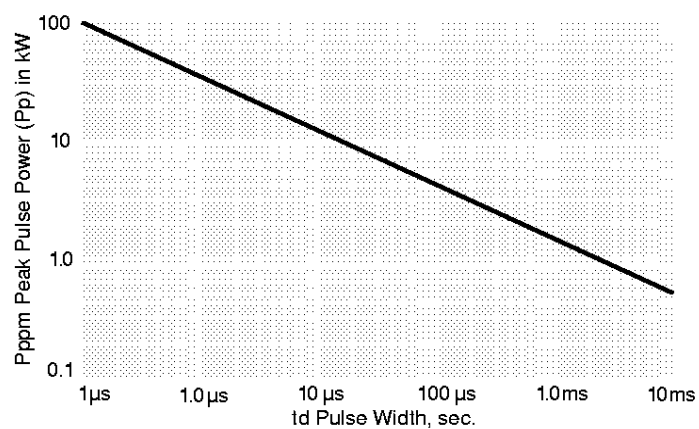


Figure 2 - Typical Junction Capacitance

