

## 1500W Transient Voltage Suppressor

### Features

- Glass passivated junction
- 1500W Peak Pulse Power capability with a 10/1000  $\mu$ s waveform
- Very Low clamping voltage
- Stand-off Voltage Range 5V to 45V
- Unidirectional and Bidirectional
- 100% surge tested
- Fast response time:  $1 \times 10^{-12}$  seconds (theoretical)
- High temperature soldering guaranteed 260°C/10 seconds (1.59mm from case)
- RoHS Compliant and Halogen Free



1.5KE



**HALOGEN  
FREE**

### Mechanical Data

<b>Case:</b>	Molded plastic over glass passivated junction, 1.5KE
<b>Terminals:</b>	Plated Axial leads, solderable per MIL-STD-202 ,Method 208
<b>Polarity:</b>	Cathode indicated by color band except Bidirectional
<b>Mounting position:</b>	Any
<b>Weight:</b>	0.045 ounce, 1.2 gram

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	Value	Unit	Conditions
<b>PPPM</b>	Peak Pulse Power Dissipation	1500	W	10/1000 us waveform
<b>PM(AV)</b>	Steady State Power Dissipation	5	W	-
<b>IPPM</b>	Peak Pulse current	See next table	A	10/1000 us waveform
<b>IFSM</b>	Peak Forward Surge Current	200	A	8.3ms Single Half Sine-wave, Unidirectional only
<b>VF</b>	Maximum Instantaneous Forward Voltage	3.5	V	IF=50A, 300us Square pulse wave, Unidirectional only
<b>TJ, TSTG</b>	Operating Junction and Storage Temperature Range	-55 to +150	° C	-

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## ICTE-5 - ICTE-45C

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

JEDEC P/N	General P/N	Reverse Stand-Off Voltage	Breakdown Voltage @ Test Current		Max. Reverse Leakage Current @ $V_{WM}$	Max. Clamping Voltage @ $I_{PP1}=1A$	Max. Clamping Voltage @ $I_{PP2}=10A$	Max. Peak Pulse Current
			$V_{WM}$ (V)	$V_{BR}$ Min.	$I_T$ (mA)	$I_R$ ( $\mu A$ )	$V_C$ (V)	$V_C$ (V)
1N6373	ICTE-5	5	6.00	1	300	7.1	7.5	160
1N6374	ICTE-8	8	9.40	1	25	11.3	11.5	100
1N6375	ICTE-10	10	11.70	1	2.0	13.7	14.1	90
1N6376	ICTE-12	12	14.10	1	2.0	16.1	16.5	70
1N6377	ICTE-15	15	17.60	1	2.0	20.1	20.6	60
1N6378	ICTE-18	18	21.20	1	2.0	24.2	25.2	50
1N6379	ICTE-22	22	25.90	1	2.0	29.8	32.0	40
1N6380	ICTE-36	36	42.40	1	2.0	50.6	54.3	23
1N6381	ICTE-45	45	52.90	1	2.0	63.3	70.0	19
1N6382	ICTE-8C	8	9.40	1	50	11.4	11.6	100.0
1N6383	ICTE-10C	10	11.70	1	2.0	14.1	14.5	90.0
1N6384	ICTE-12C	12	14.10	1	2.0	16.7	17.1	70.0
1N6385	ICTE-15C	15	17.60	1	2.0	20.8	21.4	60.0
1N6386	ICTE-18C	18	21.20	1	2.0	24.8	25.5	50.0
1N6387	ICTE-22C	22	25.90	1	2.0	30.8	32.0	40.0
1N6388	ICTE-36C	36	42.40	1	2.0	50.6	54.3	23.0
1N6389	ICTE-45C	45	52.90	1	2.0	63.3	70.0	19.0

- Note:** 1. ICTE-5 and 1N6373 are not available in Bidirectional.  
2. Suffix "C" indicates Bidirectional device.

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## Typical Characteristics Curves

Fig.1- Peak Pulse Power Rating Curve

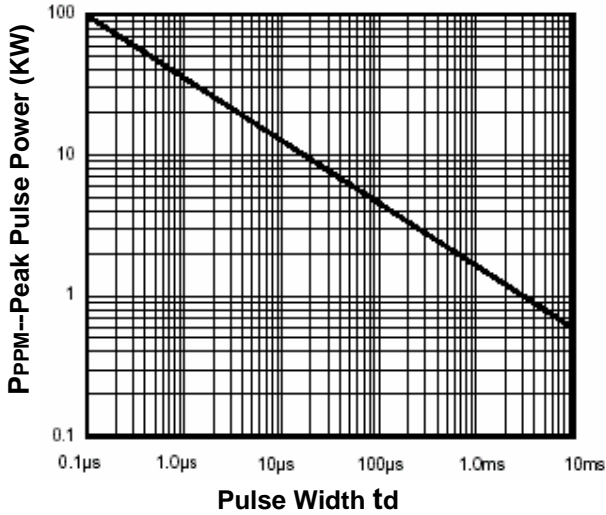


Fig.2- Typical Junction Capacitance

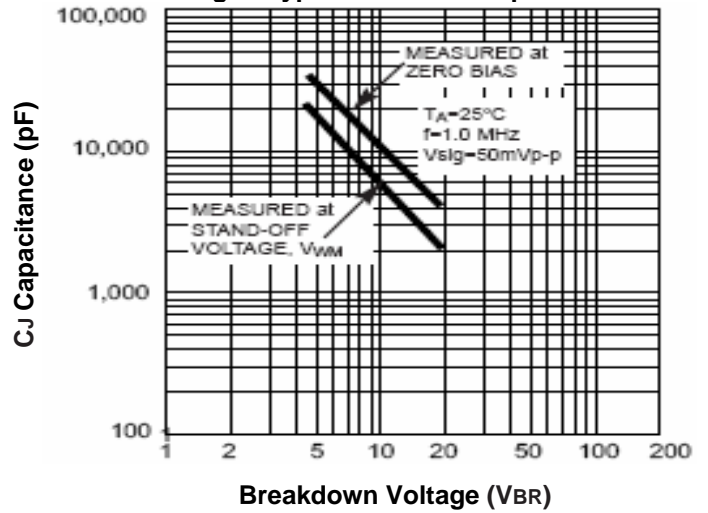
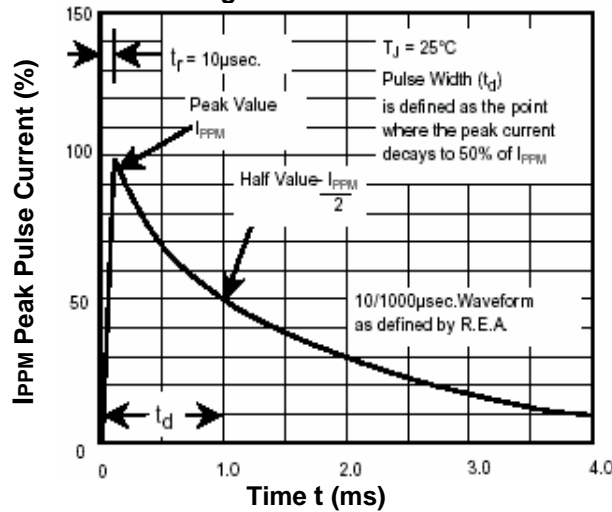


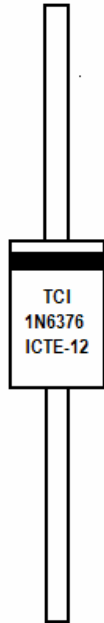
Fig.3- Pulse Waveform



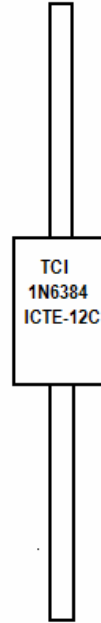
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ICTE-5 - ICTE-45C

## Marking Information:

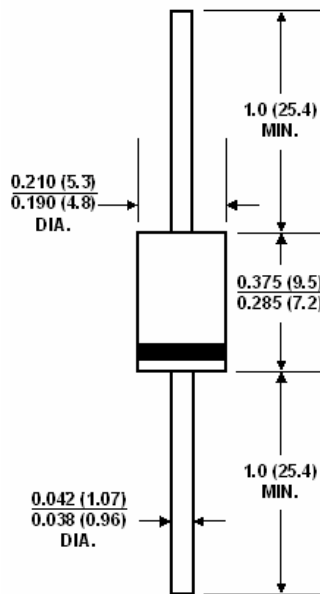


Unidirectional Marking



Bidirectional Marking

## Dimensions: Inch (mm)



1.5KE

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ICTE-5 - ICTE-45C

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