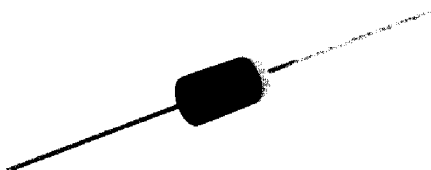


ICTE5 thru ICTE18C, 1N6373 thru 1N6386

TRANSZORB® Transient Voltage Suppressors



Case Style 1.5KE

PRIMARY CHARACTERISTICS	
V_{WM}	5.0 V to 18 V
P_{PPM}	1500 W
P_D	6.5 W
I_{FSM}	200 A
$T_J \text{ max.}$	175 °C

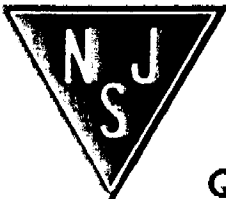
TYPICAL APPLICATIONS

Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs, MOSFET, signal lines of sensor units for consumer, computer, industrial and telecommunication.

DEVICES FOR BI-DIRECTION APPLICATIONS

For bi-directional types, use C suffix (e.g. ICTE18C).
 Electrical characteristics apply in both directions.

MAXIMUM RATINGS ($T_A = 25\text{ °C}$ unless otherwise noted)			
PARAMETER	SYMBOL	LIMIT	UNIT
Peak pulse power dissipation with a 10/1000 μs waveform ⁽¹⁾ (fig. 1)	P_{PPM}	1500	W
Peak pulse current with a 10/1000 μs waveform ⁽¹⁾ (fig. 3)	I_{PPM}	See next table	A
Power dissipation on infinite heatsink at $T_L = 75\text{ °C}$ (fig. 8)	P_D	6.5	W
Peak forward surge current 8.3 ms single half sine-wave uni-directional only ⁽²⁾	I_{FSM}	200	A
Maximum instantaneous forward voltage at 100 A for uni-directional only	V_F	3.5	V
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 175	°C



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

ICTE5 thru ICTE18C, 1N6373 thru 1N6386

ELECTRICAL CHARACTERISTICS (JEDEC REGISTERED DATA) ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)							
JEDEC TYPE NUMBER	GENERAL SEMICONDUCTOR PART NUMBER	STAND-OFF VOLTAGE V_{WM} (V)	MINIMUM BREAKDOWN VOLTAGE AT 1.0 mA V_{BR} (V)	MAXIMUM REVERSE LEAKAGE AT V_{WM} I_D (μA)	MAXIMUM CLAMPING VOLTAGE AT $I_{PP} = 1.0\text{ A}$ V_C (V)	MAXIMUM CLAMPING VOLTAGE AT $I_{PP} = 10\text{ A}$ V_C (V)	MAXIMUM PEAK PULSE CURRENT I_{PP} (A)
UNI-DIRECTIONAL TYPES							
1N6373 ⁽²⁾	ICTE5 ⁽²⁾	5.0	6.0	300	7.1	7.5	160
1N6374	ICTE8	8.0	9.4	25.0	11.3	11.5	100
1N6375	ICTE10	10.0	11.7	2.0	13.7	14.1	90
1N6376	ICTE12	12.0	14.1	2.0	16.1	16.5	70
1N6377	ICTE15	15.0	17.6	2.0	20.1	20.6	60
1N6378	ICTE18	18.0	21.2	2.0	24.2	25.2	50
BI-DIRECTIONAL TYPES							
1N6382	ICTE8C	8.0	9.4	50.0	11.4	11.6	100
1N6383	ICTE10C	10.0	11.7	2.0	14.1	14.5	90
1N6384	ICTE12C	12.0	14.1	2.0	16.7	17.1	70
1N6385	ICTE15C	15.0	17.6	2.0	20.8	21.4	60
1N6386	ICTE18C	18.0	21.2	2.0	24.8	25.5	50

Notes

- (1) "C" suffix indicates bi-directional
 (2) ICTE5 and 1N6373 are not available as bi-directional
 (3) Clamping factor: 1.33 at full rated power; 1.20 at 50 % rated power; clamping factor: the ratio of the actual V_C (clamping voltage) to the V_{BR} (breakdown voltage) as measured on a specific device

ORDERING INFORMATION (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
ICTE5-E3/54	0.968	54	1400	13" diameter paper tape and reel
ICTE5HE3/54 ⁽¹⁾	0.968	54	1400	13" diameter paper tape and reel

Note

- (1) Automotive grade