

# 1.5 KW (EPOXY CASE-C4) TRANSIENT SUPPRESSORS ELECTRICAL CHARACTERISTICS at 25°C

SICTE, SIMPTE & IN6373 - IN6389 SERIES (5.0 TO 45 VOLTS)

## FEATURES:

- Molded Case
- Epitaxial Junction
- Low Leakage
- Low  $\Delta V_z / \Delta I_z$  Characteristics
- $T_{clamp}$  (0V to BV min.)  $< 1 \times 10^{-12}$  Sec
- Bipolar  $< 5 \times 10^{-9}$  Sec

## DESCRIPTION

... a high quality suppressor for use in commercial applications where large voltage transients can permanently damage voltage sensitive components. This series has been designed to cover the most common operating voltage levels of a wide range of microprocessors, memories, digital and linear IC's.

### MAXIMUM RATINGS:

Peak Pulse Power Dissipation ( $T_A = 25^\circ\text{C}$ )

Peak Forward Surge Current ( $T_A 25^\circ\text{C}$ , 8.3 mSEC)(All Types)

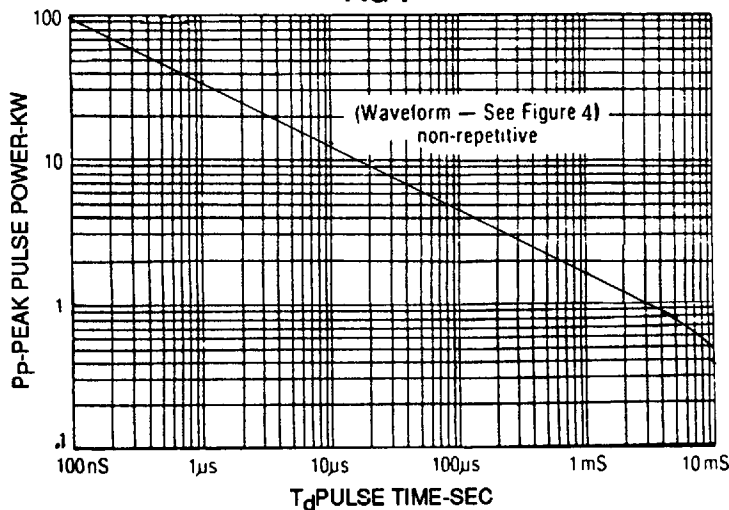
Maximum Forward Voltage Drop (100A peak, 8.3 mSEC. sine wave)

DC Power Dissipation ( $T_L = 75^\circ\text{C}$ , @3/8" From Body)

Operating and Storage

$P_p$	1500 Watts
$I_{FM}$	200 Amps
$V_F$	3.5 Volts
$P_M$	5 Watts
$T_{opr}$ $T_{stg}$	$-65^\circ\text{C}$ to $+175^\circ\text{C}$

FIG 1



PEAK PULSE POWER VS PULSE TIME

FIG 2

TEMPERATURE RATING CURVE

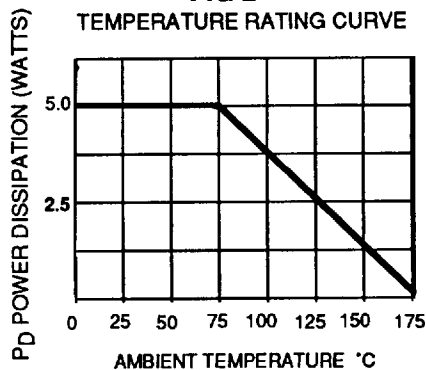


FIG 3

MAXIMUM ALLOWABLE  
PEAK PULSE CURRENT  
& POWER VS AMBIENT TEMPERATURE

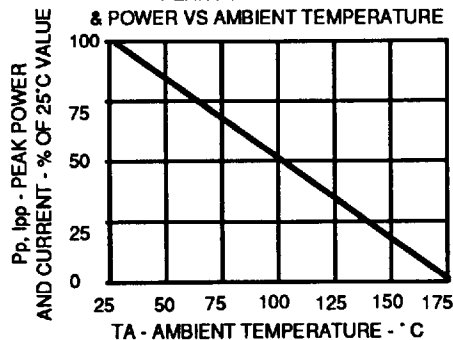
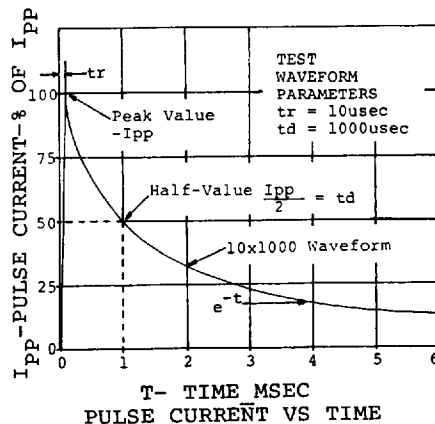


FIG 4



# 1.5 KW (EPOXY CASE-C4) TRANSIENT SUPPRESSORS

## ELECTRICAL CHARACTERISTICS at 25°C

SEMICON PART NUMBER	SEMICON PART NUMBER	JEDEC PART NUMBER	STAND-OFF VOLTAGE (Note 1) $V_R$ VOLTS	MAXIMUM REVERSE LEAKAGE @ $V_R$ $I_R$ $\mu A$	MINIMUM BREAKDOWN VOLTAGE @ 1mA BV (min) VOLTS	MAXIMUM CLAMPING VOLTAGE @ $I_{pp}=1A$ $V_C$ VOLTS	MAXIMUM CLAMPING VOLTAGE @ $I_{pp}=10A$ $V_C$ VOLTS	MAXIMUM PEAK PULSE CURRENT $I_{pp}$ A
SICTE-5	SMPTE-5	1N6373	5.0	300	6.0	7.1	7.5	160
SICTE-8	SMPTE-8	1N6374	8.0	25	9.4	11.3	11.5	100
SICTE-10	SMPTE-10	1N6375	10.0	2	11.7	13.7	14.1	90
SICTE-12	SMPTE-12	1N6376	12.0	2	14.1	16.1	16.5	70
SICTE-15	SMPTE-15	1N6377	15.0	2	17.6	20.1	20.6	60
SICTE-18	SMPTE-18	1N6378	18.0	2	21.2	24.2	25.2	50
SICTE-22	SMPTE-22	1N6379	22.0	2	25.9	29.8	32.0	40
SICTE-36	SMPTE-36	1N6380	36.0	2	42.4	50.6	54.3	23
SICTE-45	SMPTE-45	1N6381	45.0	2	52.9	63.3	70.0	19

## ELECTRICAL CHARACTERISTICS at 25°C (Bi-Polar)

SICTE-8C	SMPTE-8C	1N6382	8.0	25	9.4	11.4	11.6	100
SICTE-10C	SMPTE-10C	1N6383	10.0	2	11.7	14.1	14.5	90
SICTE-12C	SMPTE-12C	1N6384	12.0	2	14.1	16.7	17.1	60
SICTE-15C	SMPTE-15C	1N6385	15.0	2	17.6	20.8	21.4	60
SICTE-18C	SMPTE-18C	1N6386	18.0	2	21.2	24.8	25.5	50
SICTE-22C	SMPTE-22C	1N6387	22.0	2	25.9	30.8	32.0	40
SICTE-36C	SMPTE-36C	1N6388	36.0	2	42.4	50.6	54.3	25
SICTE-45C	SMPTE-45C	1N6389	45.0	2	52.9	63.3	70.0	19

NOTE 1: A suppressor is normally selected according to the reverse "Stand Off Voltage" ( $V_R$ ) which should be equal to or greater than the DC or continuous peak operating voltage level.