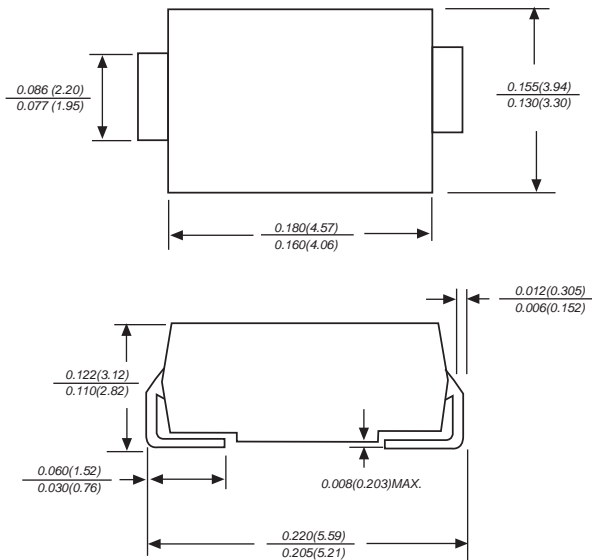


# STPA62 THRU STPA270

## SOLID STATE TELECOMMUNICATION PROTECTION ARRESTOR

Breakdown Voltage - 62 to 270 Volts Holding Current - 150 Milliampere

### DO-214AA



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Bidirectional crowbar protection
- ◆ Fast response
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed 250°C/10 seconds on terminals

### MECHANICAL DATA

**Case:** JEDEC DO-214AA molded plastic body

**Terminals:** Plated leads, solderable per MIL-STD-750, Method 2026

**Mounting Position:** Any

**Weight:** 0.05 ounce, 0.138grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

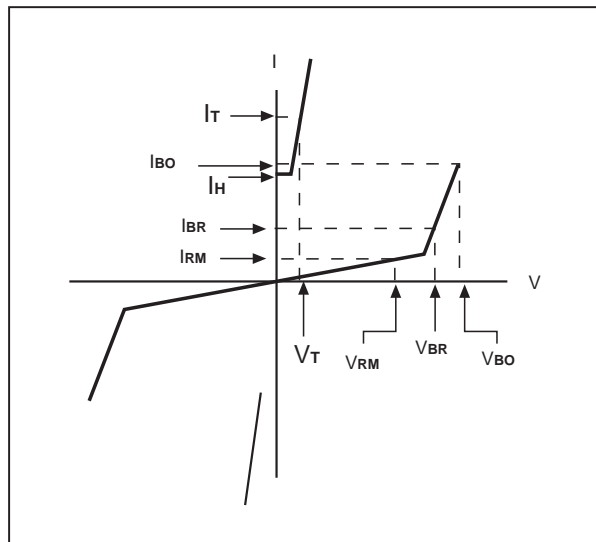
	SYMBOLS	TPA 62	TPA 68	TPA 100	TPA 120	TPA 130	TPA 180	TPA 200	TPA 220	TPA 240	TPA 270	UNITS
Breakdown voltage ( $I_R=1mA$ )	$V_{BR}$	62	68	100	120	130	180	200	220	240	270	VOLTS
Maximum breakover voltage ( $I_{BO}=800mA$ )	$V_{BO}$	82	90	133	160	173	240	267	293	320	360	VOLTS
Maximum off-state voltage	$V_{RM}$	56	61	90	108	117	162	180	198	216	243	VOLTS
Maximum on-state current ( $I_T=1A$ )	$V_T$	2	4									VOLTS
Maximum off-state current @ $V_{RM}$	$I_{RM}$							2				$\mu A$
Minimum holding current	$I_H$							150				mA
Maximum peak pulse current (10/1000ms)	$I_{PP}$							50				A
Maximum surge current (50 Hz)	$I_{TSM}$							25				A
Minimum critical off-state voltage rise rate	$dV/dt$							2				KV/mS
Typical junction capacitance (Note 1)	$C_J$	150					100				pF	
Junction teperature	$T_J$							-40 to +150				°C
Storage temperature	$T_{STG}$							-40 to +150				°C
Junction to leads on infinite heatsink	$R_{qJL}$							60				°C/W
Junction to ambient on printed circuit L(lead)=10mmA	$R_{qJA}$							100				°C/W

Note 1:  $F=1MHz$   $V_R=1V$

## RATINGS AND CHARACTERISTIC CURVES STPA62 THRU STPA270

### NOTE1:MEANING OF PARAMETERS

Symbol	Parameter
$V_{RM}$	Stand-off voltage
$V_{BR}$	Breakdown voltage
$V_{BO}$	Breakover voltage
$I_H$	Holding current
$V_T$	On-state voltage
$I_{BO}$	Breakover current
$I_{PP}$	Peak pulse current



### NOTE2:ALL STPA SERIES MEET THE SURGE REQUIREMENTS OF THE FOLLOWING STANDARDS:

CCITTK 17-K20	10/700ms	1.5KV
	5/310ms	38A
VDE0433	10/700ms	2KV
	5/200ms	50A
CNET	0.5/700ms	1.5KV
	0.2/310ms	38A

# RATINGS AND CHARACTERISTIC CURVES STPA62 THRU STPA270

FIG. 1-PULSE WAVE FORM(10/1000ms)

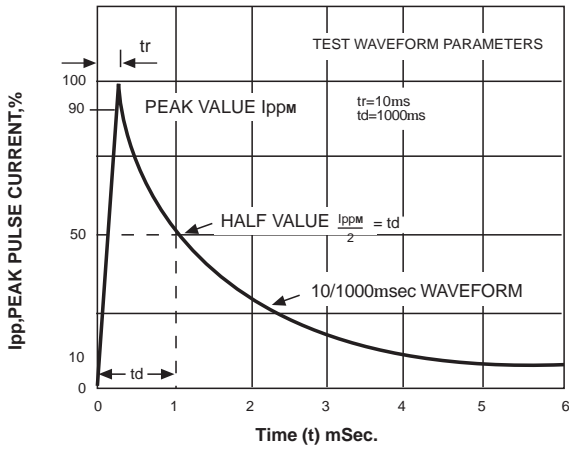


FIG. 2-NORMALIZED DC HOLDING CURRENT VS CASE TEMPERATURE

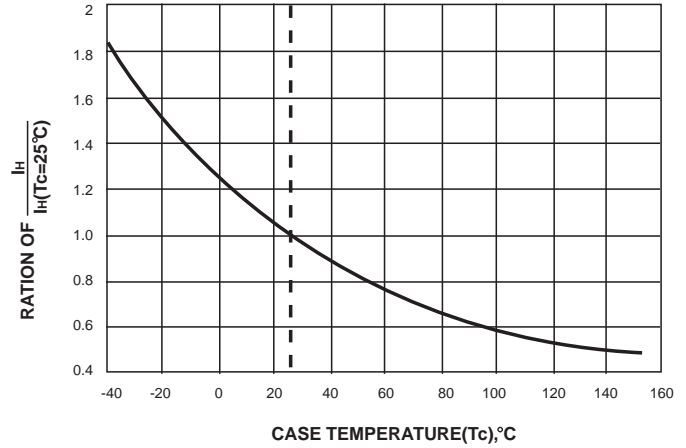


FIG. 3-TYPICAL TRANSIENT THERMAL IMPEDANCE

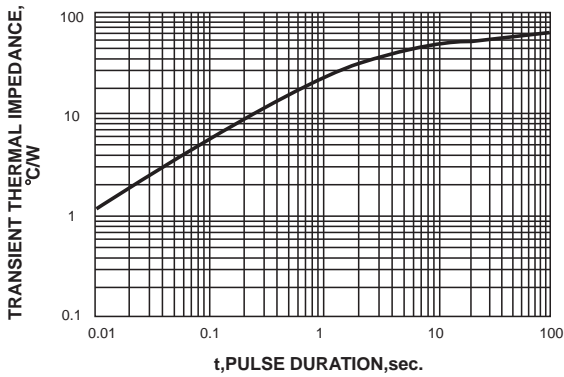


FIG. 4-NORMALIZED V<sub>Bo</sub> CHANGE VS JUNCTION TEMPERATURE

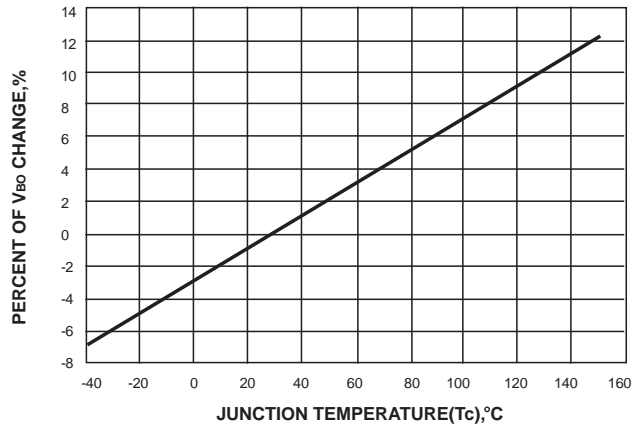


FIG. 5-NON REPETITIVE SURGE PEAK ON-STATE CURRENT VERSUS OVERLOAD DURATION ( $T_j$  INITIAL=25°C)

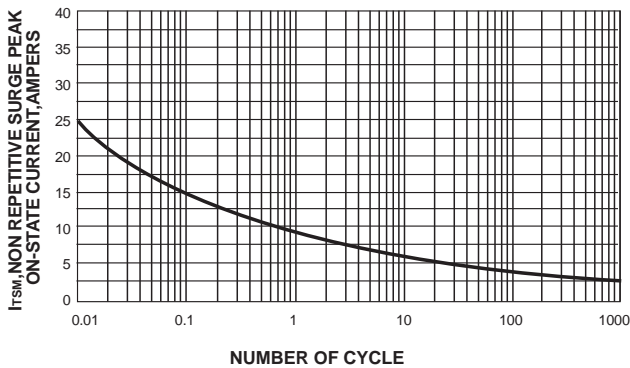


FIG. 6- ON-STATE CURRENT VERSUS ON-STATE VOLTAGE(TYPICAL VALUES).

