SOLID STATE TELECOMMUNICATION PROTECTION ARRESTOR

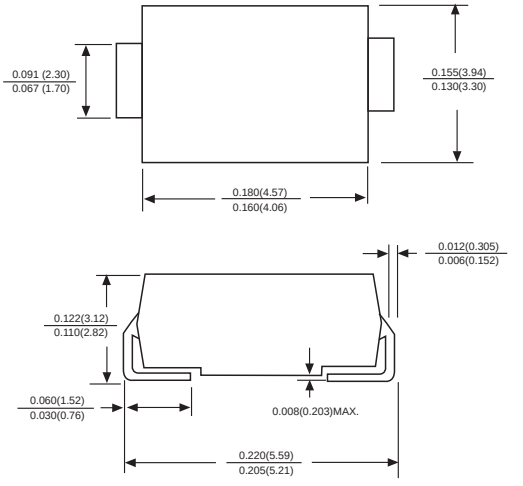
STPA62 THRU STPA270

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

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

DO-214AA



Dimensions in inches and (millimeters)

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	STPA 68	STPA 100	STPA 120	STPA 130	STPA 180	STPA 200	STPA 220	STPA 240	STPA 270	UNITS
Maximum 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 voltage (I_T=1A)	V_T	2	4									VOLTS
Maximum off-state current @V_{RM}	I_{RM}	2										μA
Maximum holding current	I_H	150										mA
Maximum peak pulse current (10/1000μs)	I_{PP}	50										A
Maximum surge current (50 Hz)	I_{TSM}	25										A
Minimum critical off-state voltage rise rate	dV/dt	2										KV/μS
Tyipical junction capacitance (Note 1)	C_J	150	100									pF
Junction temperature	T_J	-40 to +150										°C
Storage temperature	T_{STG}	-40 to +150										°C
Junction to leads on infinite heatsink	$R_{\theta JL}$	60										°C/W
Junction to ambient on printed circuit L(lead)=10mmA	$R_{\theta JA}$	100										°C/W

Note 1:F=1MHz V_R=1V

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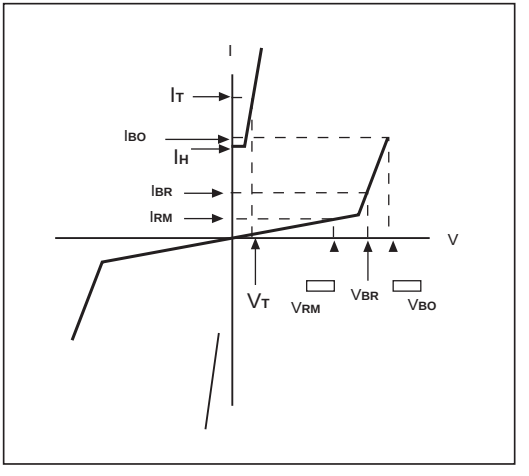
NOTE1:MEANING OF PARAMETERS

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	10/700μs	1.5KV
	5/310μs	38A
VDE0433	10/700μs	2KV
	5/200μs	50A
CNET	0.5/700μs	1.5KV
	0.2/310μs	38A

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FIG.1-PULSE WAVE FORM(10/1000μs)

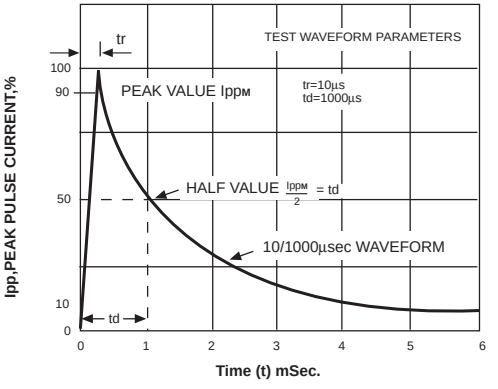

FIG. 2-NORMALIZED DC HOLDING CURRENT VS CASE TEMPERATURE

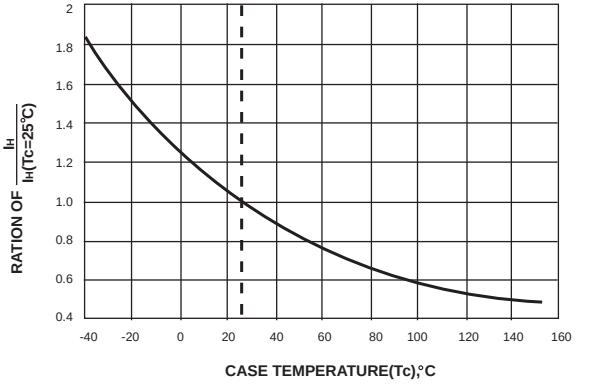

FIG. 3-TYPICAL TRANSIENT THERMAL IMPEDANCE

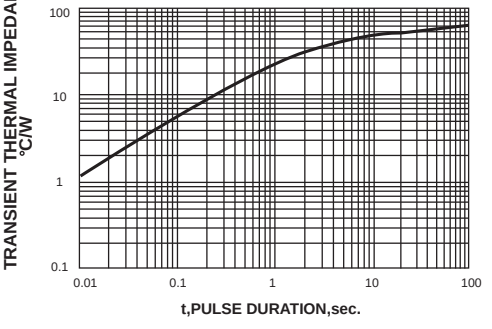

FIG. 4-NORMALIZED VBO CHANGE VS JUNCTION TEMPERATURE

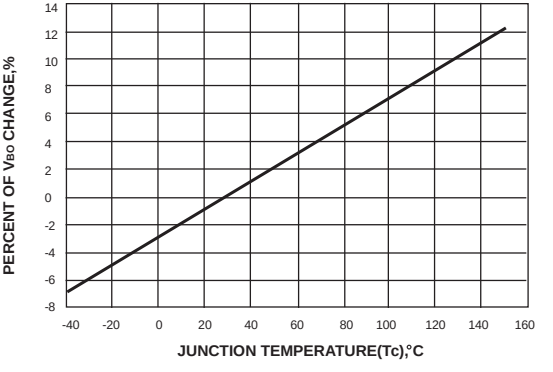

FIG. 5-NON REPETITIVE SURGE PEAK ON-STATE CURRENT VERSUS OVERLOAD DURATION (Tj INITIAL=25°C)

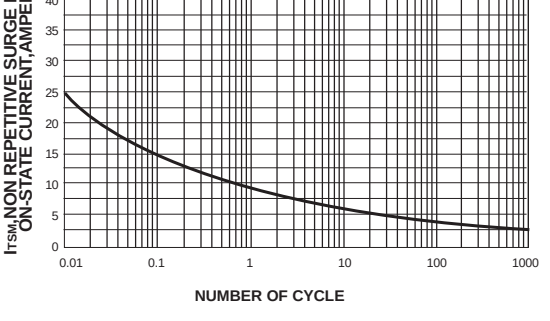

FIG. 6- ON-STATE CURRENT VERSUS ON-STATE VOLTAGE(TYPICAL VALUES).