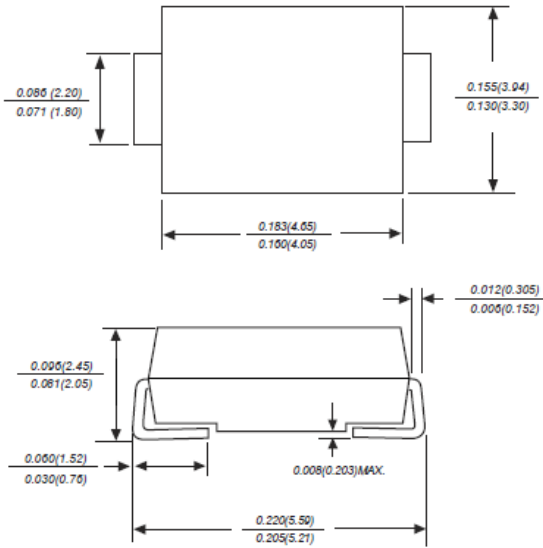


K090 THRU K260

HIGH VOLTAGE BIDIRECTIONAL TRIGGER DIODE 70 to 220 Volts



SMB/DO214AA



Dimensions in millimeters

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Bidirectional crowbar protection
- ◆ High surge current capability
- ◆ 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** : 0.0048 ounce, 0.136grams

Thermal Considerations

Symbol	Parameter	Value	Unit
I_T	Average On-state Current (AV)	± 1.0	A
T_{TSM}	Maximum Surge Current (50H)	± 4.0	A
$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	90	°C/W
T_J	Operating Junction Temperature Range	-40 to +125	°C
T_S	Storage Temperature Range	-65 to +150	°C

Electrical Parameters

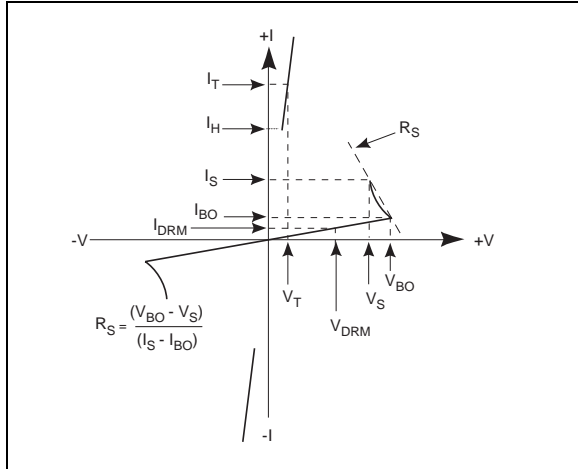
Part Number	V_{DRM} Volts		I_{DRM} μ Amps		V_{BO} Volts		I_{BO} mAmps		I_H mAmps		V_{TM} Volts
	Min	Max	Min	Max	Min	Max	Max	Min	Max	Max	
K090	70	1	80	100	0.5	10	50	2.0			
K105	90	1	95	115	0.5	10	50	2.0			
K110	95	1	100	120	0.5	10	50	2.0			
K120	100	1	110	130	0.5	10	50	2.0			
K130	110	1	120	140	0.5	10	50	2.0			
K140	120	1	130	150	0.5	10	50	2.0			
K150	130	1	140	160	0.5	10	50	2.0			
K160	140	1	150	170	0.5	10	50	2.0			
K180	160	1	170	190	0.5	10	50	2.0			
K200	180	1	190	210	0.5	10	50	2.0			
K220	190	1	210	230	0.5	10	50	2.0			
K240	200	1	230	250	0.5	10	50	2.0			
K260	220	1	250	270	0.5	10	50	2.0			

K090 THRU K260

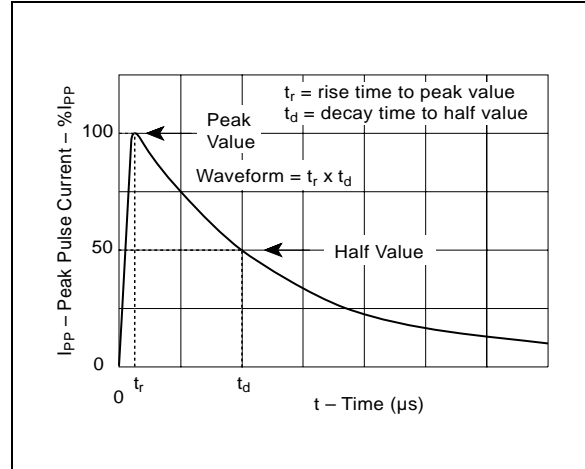
HIGH VOLTAGE BIDIRECTIONAL TRIGGER DIODE
70 to 220 Volts



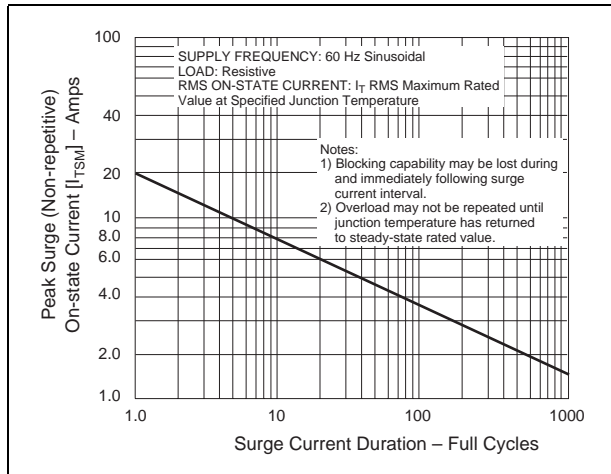
RATINGS AND CHARACTERISTIC CURVES K090 THRU K260



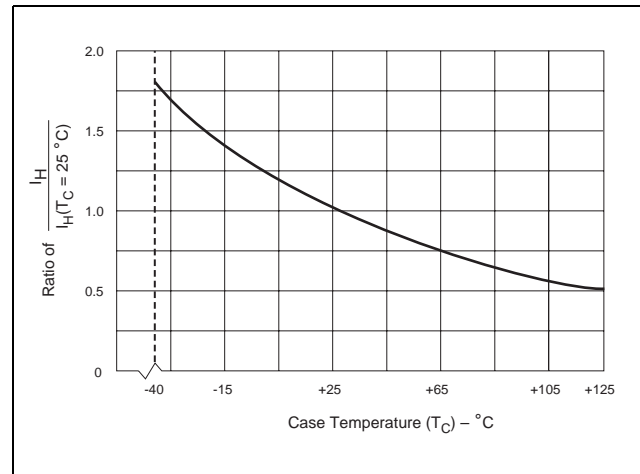
V-I Characteristics



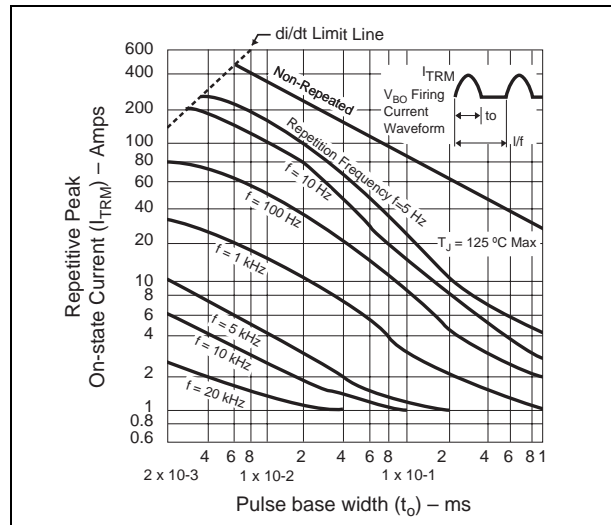
$t_r \times t_d$ Pulse Wave-form



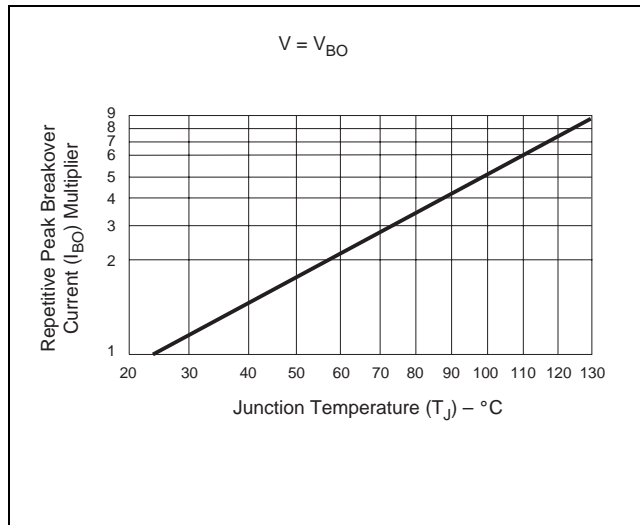
Peak Surge Current versus Surge Current Duration



Normalized DC Holding Current versus Case/Lead Temperature



Repetitive Peak On-state Current (I_{TRM}) versus Pulse Width at Various Frequencies



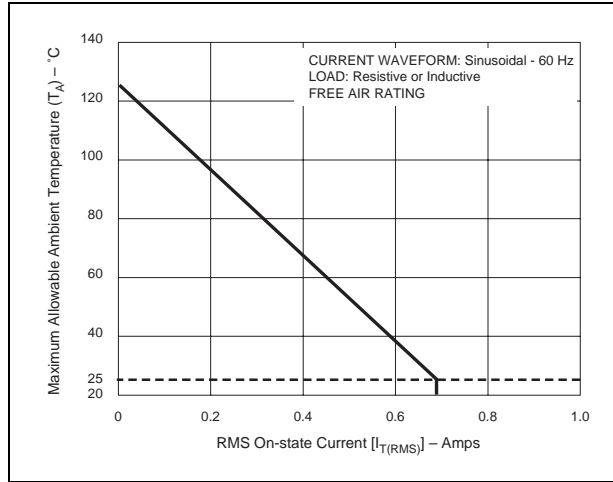
Normalized Repetitive Peak Breakover Current versus Junction Temperature

K090 THRU K260

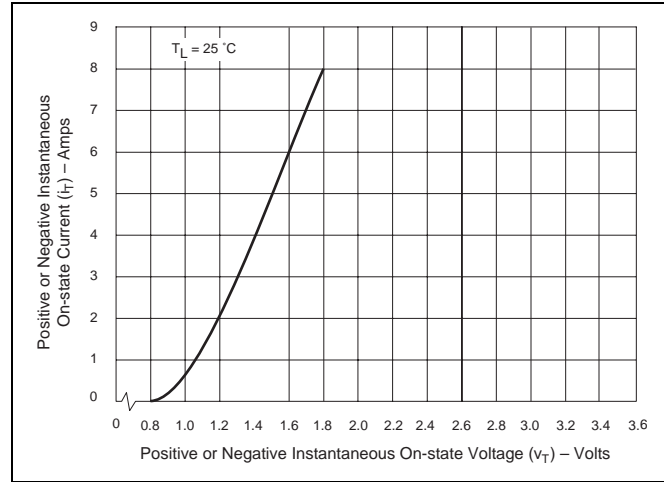
HIGH VOLTAGE BIDIRECTIONAL TRIGGER DIODE
70 to 220 Volts



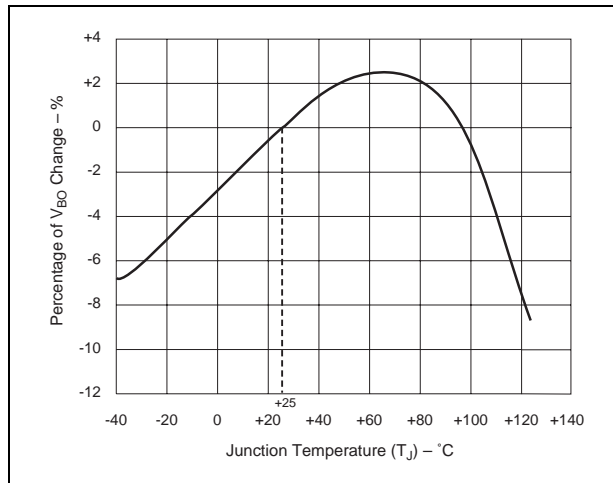
RATINGS AND CHARACTERISTIC CURVES K090 THRU K260



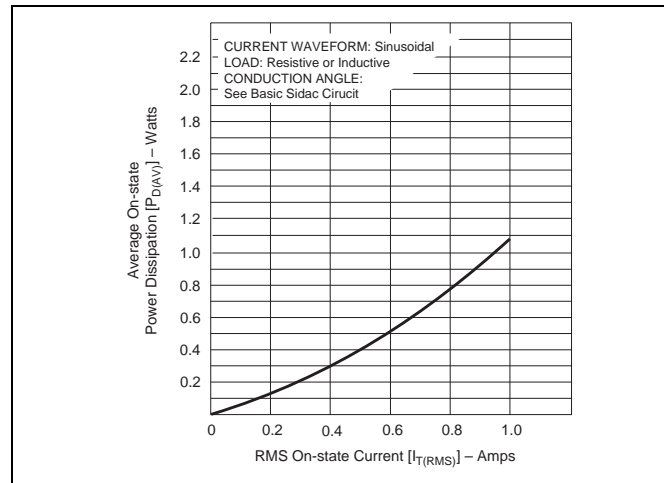
Maximum Allowable Ambient Temperature versus On-state Current



On-state Current versus On-state Voltage (Typical)



Normalized V_{BO} Change versus Junction Temperature



Power Dissipation (Typical) versus On-state Current
[Refer to Figure E9.14 for Basic Sidac Circuit]