

SIDAC

V_{BO} : 95 - 270 Volts

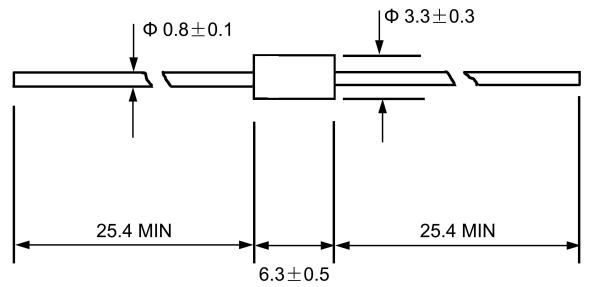
FEATURES

- High surge current capability
- DO-15 Package

APPLICATIONS

- Gas ignitor
- Xenon ignitors
- High voltage lcmp ignitors
- Pulse generator
- Over voltage protector

DO-15



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		DB105	K110	K120	K130	K200	K220	K240	K260	UNITS	
Maximum off-state voltage	V_{DRM}	90				180				V	
Maximum RMS on-state current @ $T_C=100$	I_T	1.0									A
Maximum surge on-state current non-repetitive one cycle peak value	I_{TSM}	20									A
Typical pulse on-state current, pulse width 10 μ s sinewave, repetitive peak value $f=1$ KHz	I_{TRM}	20									A
Breakover voltage @ $I_{BO}=0.5$ mA	V_{BO}	95-113	104-118	110-125	120-138	190-215	200-230	220-250	240-270	V	
Maximum off-state current @ V_{DRM}	I_{DRM}	10									μ A
Maximum breakover current	I_{BO}	10									μ A
Typical holding current	I_H	50									m A
Maximum on-state voltage @ $I_T=1$ A	V_T	1.5									V
Maximum switching resistance	R_S	0.1									Kohm
Typical thermal resistance junction to lead	$R_{\theta JL}$	20									/W
Maximum critical rate of rise of on-state current	di_T/d_t	150									A/ μ A
Operating temperature range	T_J	- 55 --- + 125									
Storage temperature range	T_{STG}	- 55 --- + 150									

NOTE: Sidac is a silicon bilateral voltage triggered device.
While the application voltage exceeding the device.
Breakover voltage point, the device switches on to a low on-state.
Voltage thru a negative resistance region. On-state continues until
Current drops below device holding current level.

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FIG.1-Maximum Allowable Case Temperature vs On State Current (And Ambient)

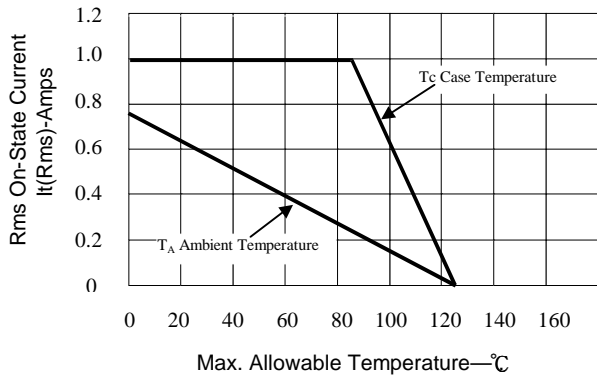


FIG.2-Peak Surge Current vs Surge Current Duration

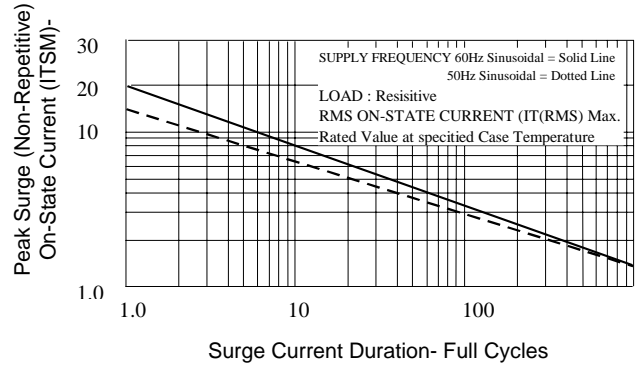


FIG.3-Normalized DC Holding Current vs Case Temperature

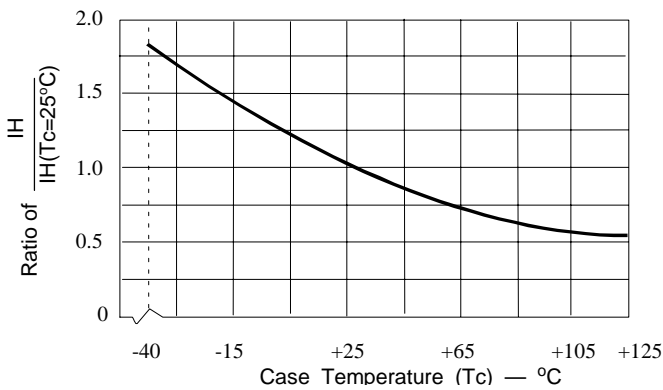


FIG.4-Normalized V_{BO} Change vs Junction Temperature

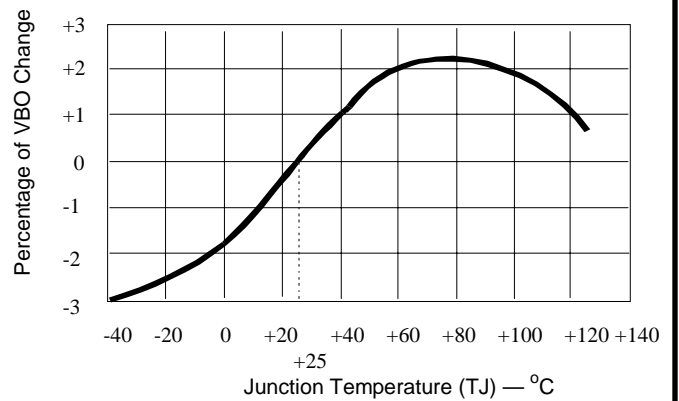


FIG.5-High Frequency Current Capacity

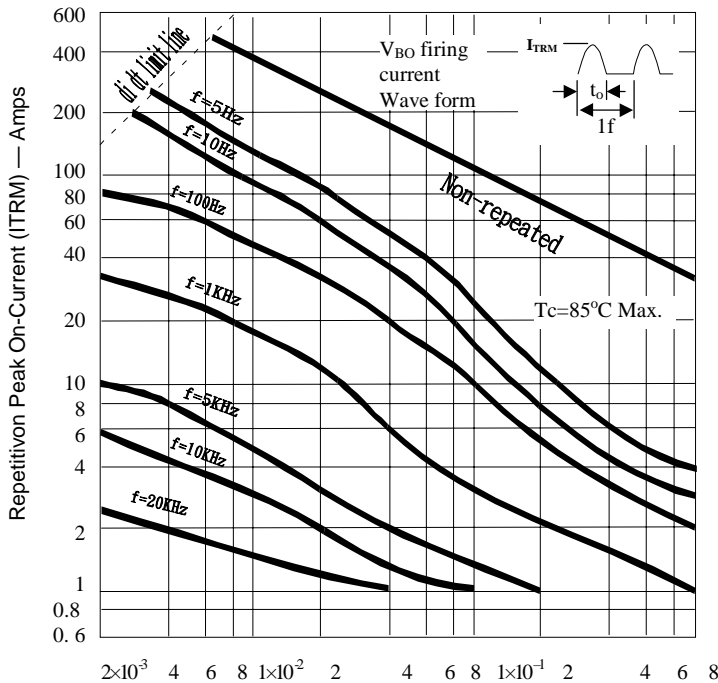


FIG.6-Normalized Repetitive Peak Off-State Current vs Junction Temperature

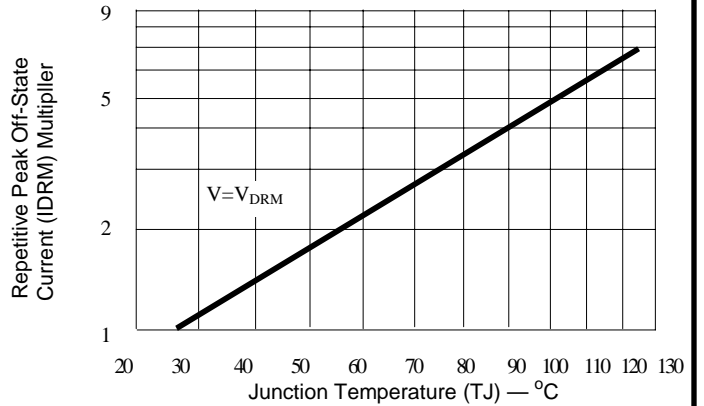


FIG.7- V-I Characteristics

