FRONTIER
ELECTRONICS CO., LTD.

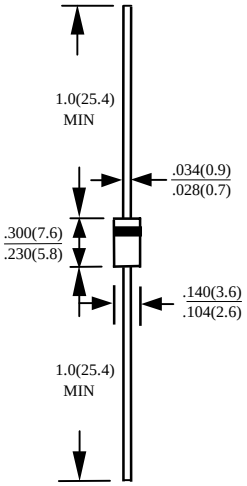
K105 THRU K260

SIDAC (95 – 270 VOLTS)

FEATURES
- GLASS PASSIVATED JUNCTIONS
- HIGH SURGE CURRENT CAPABILITY
- DO-15 PACKAGE

APPLICATIONS
- GAS IGNITOR
- XENON IGNITORS
- HIGH VOLTAGE LCMP IGNITORS
- PULSE GENERATOR
- OVER VOLTAGE PROTECTOR

CASE-DO15



DIMENSIONS IN INCHES AND (MILLIMETERS)

RATINGS AT 25℃ AMBIENT TEMPERATVRE UNLESS OTHERWISE SPECIFIED

RATINGS	SYMBOL	K105	K110	K120	K130	K200	K220	K240	K260	UNITS
MAXIMUM OFF-STATE VOLTAGE	V_{DRM}	90				180				V
MAXIMUM RMS ON-STATE CURRENT@TC100℃ 60HZ	I_T	1								A
MAXIMUM SURGE ON-STATE CURRENT@Ta25℃ 60HZ NON-REPETITIVE ONE CYCLE PEAK VALUE	I_{TSM}	20								A
TYPICAL PULSE ON-STATE CURRENT@Ta25℃,PULSE WIDTH 10μS SINEWAVE, REPETITIVE PEAK VALUE f=1KHZ	I_{TRM}	20								A
MAXIMUM CRITICAL RATE OF RISE OF ON-STATE CURRENT	di_T/dt	150								A/μA
MAXIMUM OPERATING TEMPERATURE RANGE	T_J	-40 TO + 125								℃
MAXIMUM STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150								℃

ELECTRICAL CHARACTERISTICS (AT TA =25°C UNLESS OTHERWISE NOTED)

BREAKOVER VOLTAGE @I_{BO}0.5ma	VBO	95-113	104-118	110-125	120-138	190-215	200-230	220-250	240-270	UNITS
MAXIMUM OFF-STATE CURRENT @V_{DRM}	I_{DRM}	10.0								μA
MAXIMUM BREAKORVER CURRENT	I_{BO}	0.5								mA
TYPICAL HOLDING CURRENT	IH	50.0								mA
MAXIMUM ON-STATE VOLTAGE @ I_{T1A}	V_T	1.5								V
MAXIMUM SWITCHING RESISTANCE	R_S	0.1								Kohm
TYPICAL THERMAL RESISTANCE, JUNCTION TO LEAD	θ_{JL}	20.0								℃/W

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.

RATINGS AND CHARACTERISTIC CURVE K105 THRU K260

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

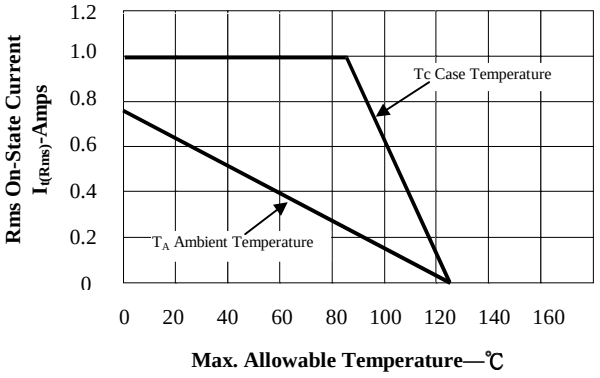


FIG.2-Peak Surge Current vs Surge Current Duration

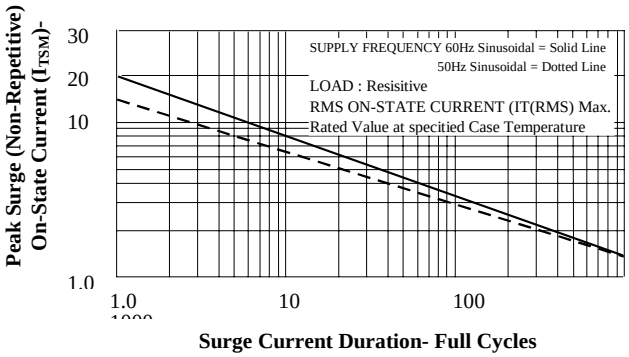


FIG.3-Normalized DC Holding Current vs Case Temperture

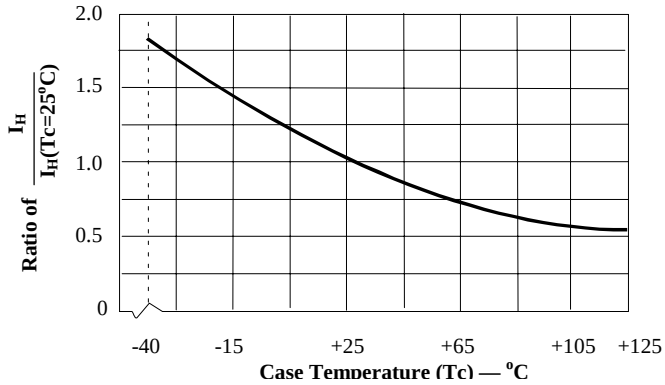


FIG.4-Normalized V_{BO} Change vs Junction Temperature

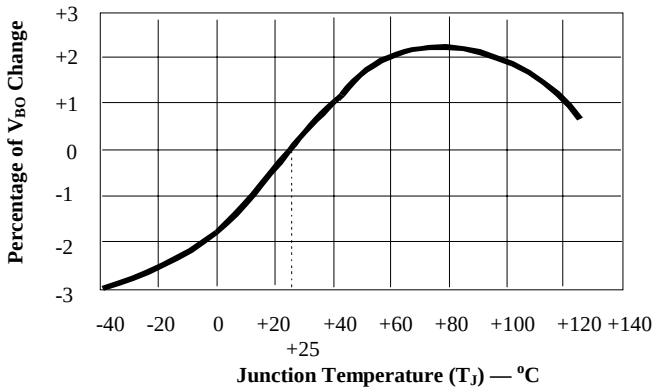


FIG.5-High Frequency Current Capacity

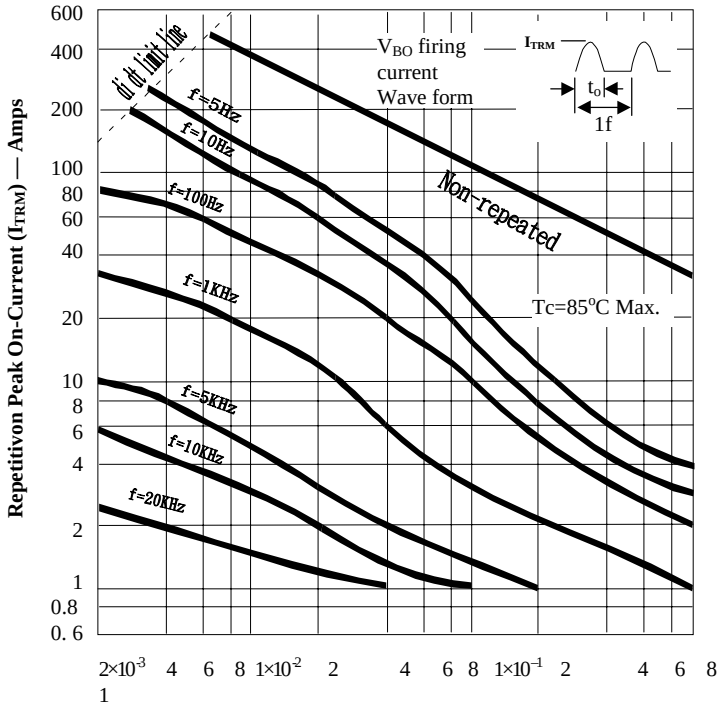


FIG.6-Normalized Repetitive Peak Off-State Current vs Junction Temperature

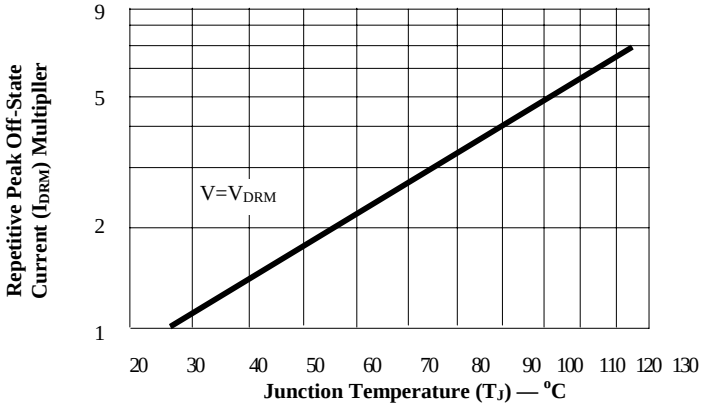


FIG.7- V-I Characteristics