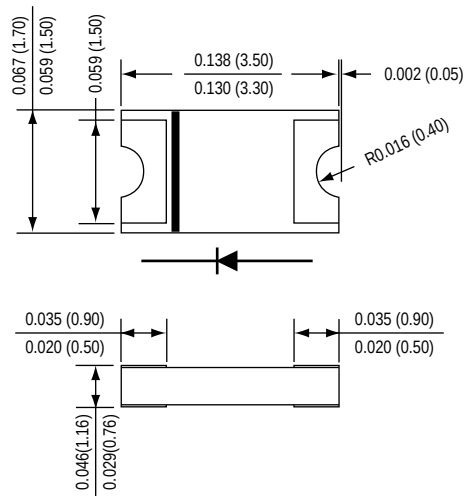
SGC10DH THRU SGC10MH

SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 200 to 600 Volts *Forward Current - 1.0 Ampere*

PATENTED

1206-S



*Dimensions in inches and (millimeters)

SuperChip™
SUPEREX II™

* Equivalent to SOD87, GL1M , SOD123

FEATURES

* Halogen-free type
* Lead free product, compliance to RoHs
* Lead less chip form, no lead damage
* Lead-free solder joint, no wire bond & lead frame
* Low power loss , High efficiency
* High current capability
* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : Packed with FRP substrate and epoxy underfilled
Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.
Polarity : Cathode Band, Laser marking
Weight : 0.012 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***SGC10DH***	***SGC10GH***	***SGC10JH***	***SGC10KH***	***SGC10MH***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	Volts
Maximum average forward rectified current (SEE FIG.1)	$I_{(AV)}$	1.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	15					Amps
Maximum instantaneous forward voltage at 1.0 A	V_F	1.0					Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25°C T_A=125°C T_A=150°C	I_R	2 30 50					uA
Typical junction capacitance (NOTE 1)	C_J	12					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	80 40					°C / W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +175					°C

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
(2) Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES SGC10DH THUR SGC10MH

FIG.1 - FORWARD CURRENT DERATING CURVE

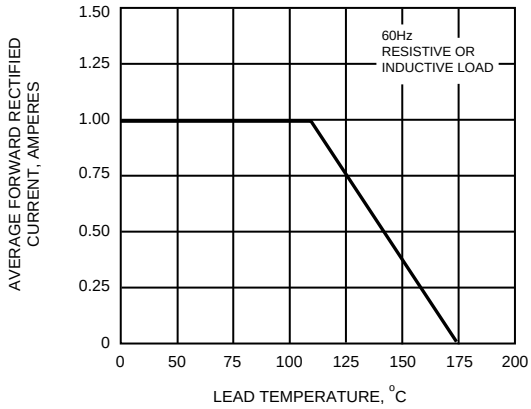


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

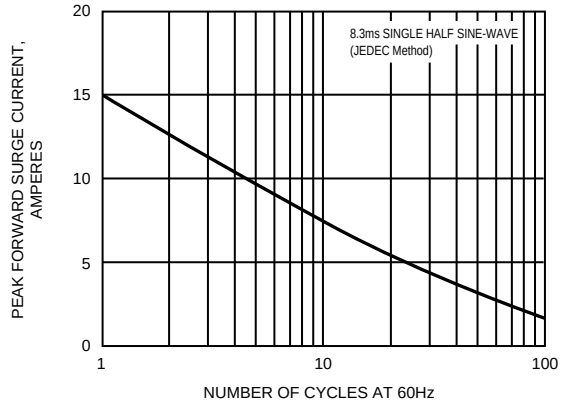


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

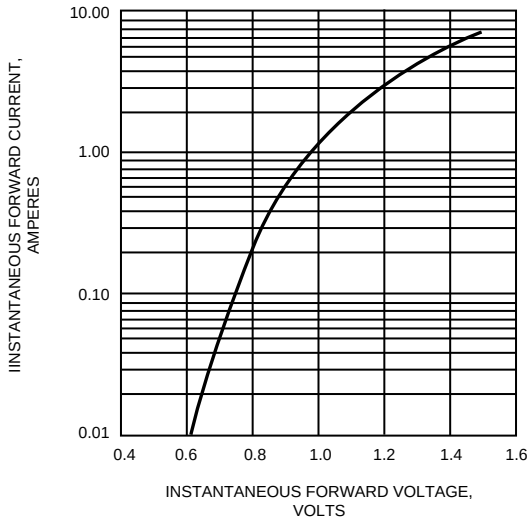


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

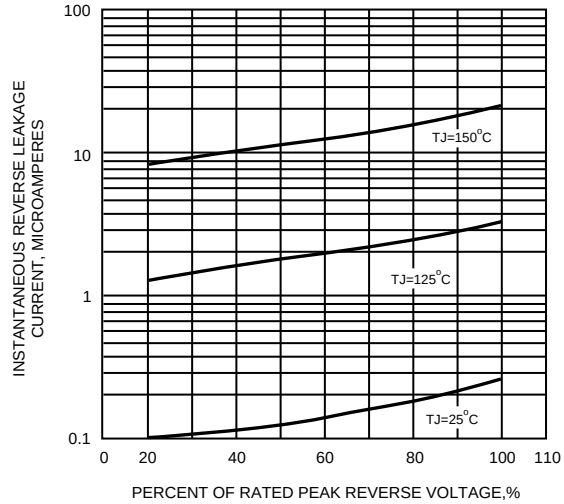


FIG.5 - TYPICAL JUNCTION CAPACITANCE