

SGC10DLH THRU SGC10MLH
Low VF Rectifier Diode

● **FEATURES**

- * Halogen-free type
- * Lead free product, compliance to RoHS
- * GPRC (Glass passivated rectifier chip) inside
- * Glass passivated cavity-free junction
- * Lead less chip form, no lead damage
- * Low power loss, high efficiency
- * For surface mounted applications
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● **APPLICATION**

- * General purpose rectification
- * Surge absorption

● **MECHANICAL DATA**

Case : Packed with FRP substrate and epoxy underfilled

Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

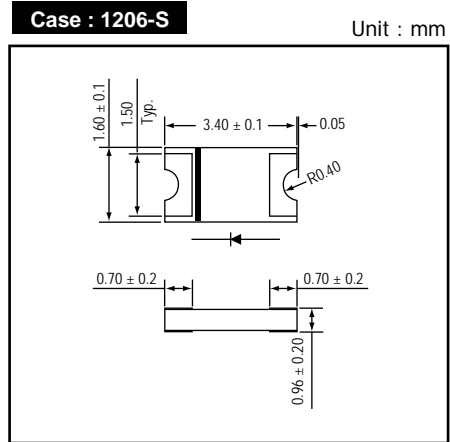
Polarity : Laser Cathode band marking

Weight : 0.012 gram

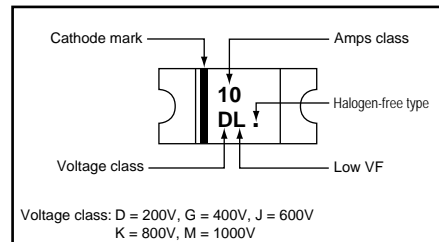
● **PACKING**

- * 3,000 pieces per 7" (178mm ± 2mm) reel
- * 4 reels per box
- * 6 boxes per carton

● **OUTLINE DIMENSIONS**



● **MARKING**



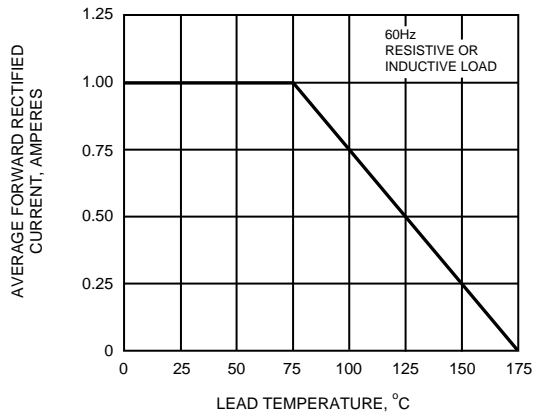
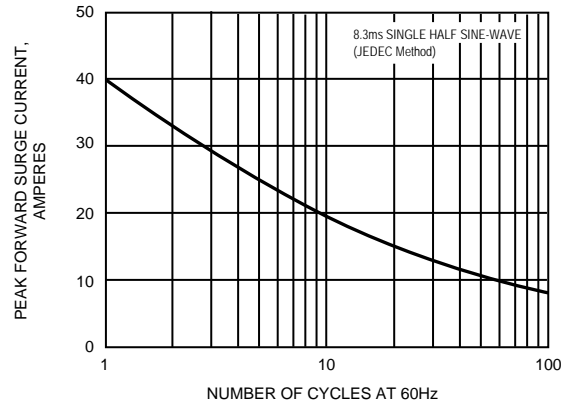
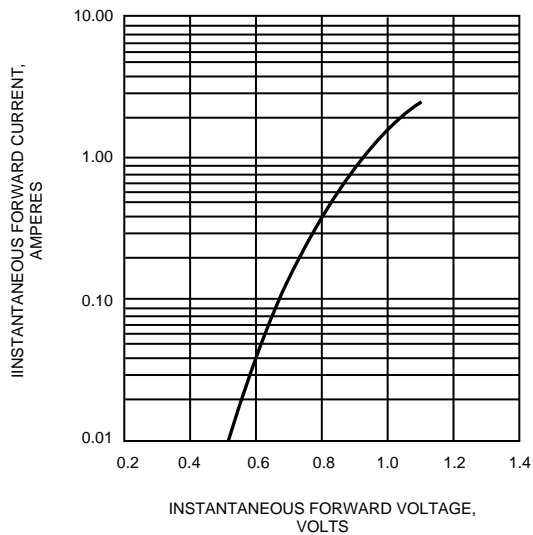
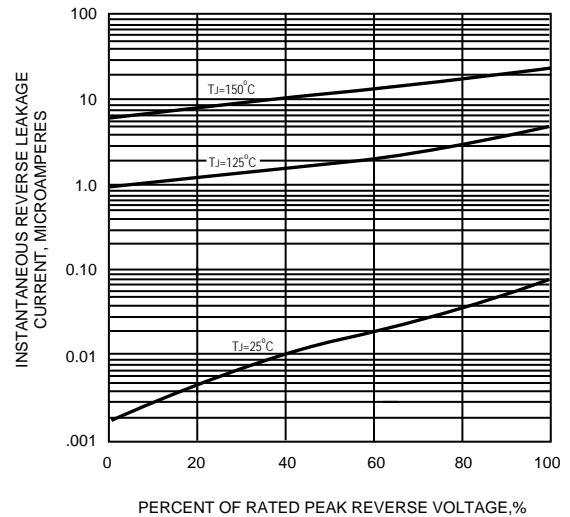
Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Rating					Unit
		SGC10DLH	SGC10GLH	SGC10JLH	SGC10KLH	SGC10MLH	
Repetitive peak reverse voltage	VRRM	200	400	600	800	1000	V
Average forward current	IF(AV)	1.0					A
Peak forward surge current (8.3ms single half sine-wave)	IFSM	40					
Operating junction temperature Range	Tj	-65 to +175					°C
Storage temperature Range	TSTG	-65 to +175					

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 1.0A	-	0.92	0.95	V
Repetitive peak reverse current	IRRM	VR = Max. VRRM, Ta = 25 °C	-	0.08	5	µA
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	12	-	pF
Thermal resistance	Rth(JA)	Junction to ambient (NOTES 1)	-	130	-	°C/W
	Rth(JL)	Junction to lead (NOTES 1)	-	40	-	

NOTES : (1) 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.
 (2) Preliminary draft.

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
