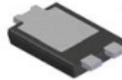


## FEATURES

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CP10S45SG
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

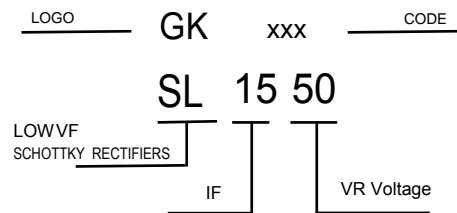
## MECHANICAL DATA

- Epoxy : UL94-V0 rated flame retardant.
- Case : Molded plastic, TO-277.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight : Approximated 0.093 grams.



## VOLTAGE RANGE

50 Volts  
CURRENT  
15.0 Ampere



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.

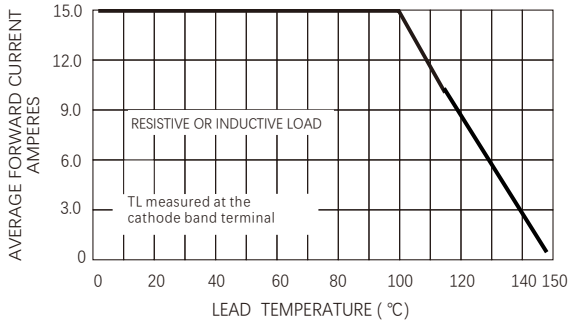
TYPE NUMBER	SL1550 LOWVF	UNITS
Maximum Recurrent Peak Reverse Voltage	50	V
Maximum RMS Voltage	35	V
Maximum DC Blocking Voltage	50	V
Maximum Average Forward Rectified Current See Fig. 1	15.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200	A
Maximum Instantaneous Forward Voltage at 15.0A	0.53	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	0.2 20	mA
Typical Junction Capacitance (Note1)	1200	pF
Typical Thermal Resistance R <sub>JA</sub> (Note 2)	30	°C/W
Operating Temperature Range T <sub>J</sub>	-55 — +150	°C
Storage Temperature Range T <sub>STG</sub>	-55 — +150	°C

Note : 1.FR-4 PCB, 2oz.Copper.

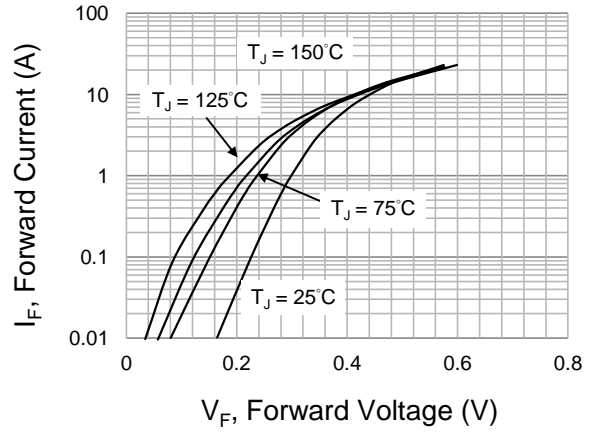
2.Polyimide PCB, 2oz.Copper.Cathode pad dimensions 18.8mm x 14.4mm.Anode pad dimensions 5.6mm x 14.4mm.

**RATING AND CHARACTERISTIC CURVES**

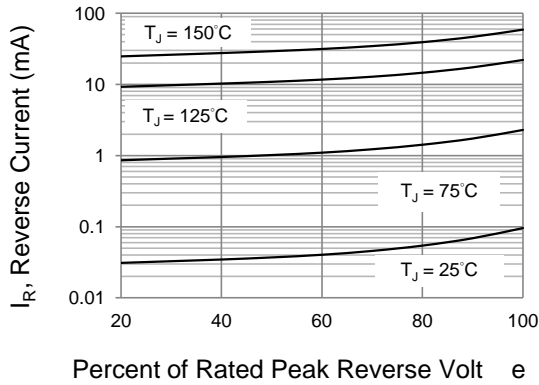
**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**



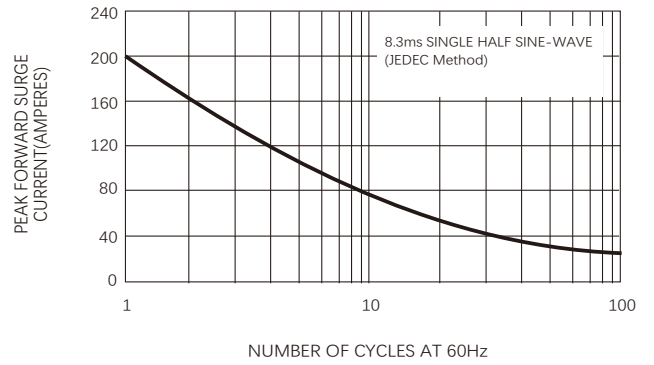
**FIG.2-TYPICAL FORWARD CHARACTERISTICS**



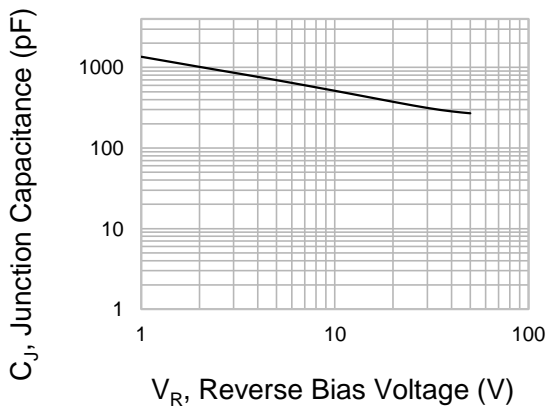
**FIG.3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



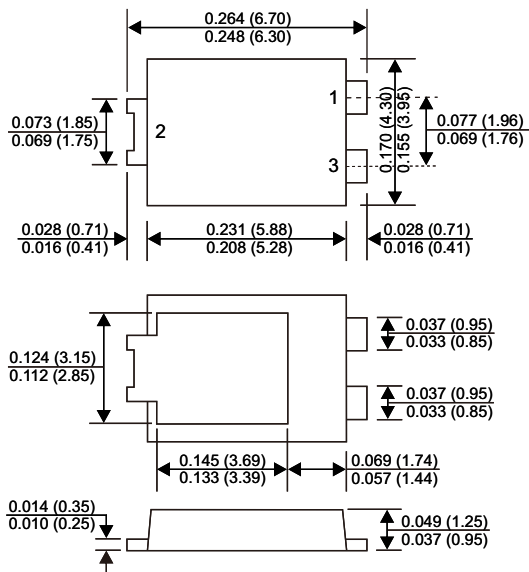
**Soldering parameters**

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	+150 °C
	-Temperature Max( $T_{s(max)}$ )	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak)		3 °C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3 °C/sec. Max
Reflow	-Temperature( $T_L$ )(Liquid us)	+217 °C
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_P$ )		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp ( $t_p$ )		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp ( $T_P$ )		8 min. Max
Do not exceed		+260 °C

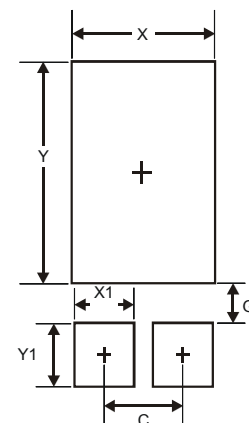


**Package Dimensions & Suggested Pad Layout**

TO - 277



Dimensions in inches and (millimeters)



Dimensions	Value (in mm)
C	1.84
G	1.00
X	3.50
X1	1.40
Y	4.90
Y1	1.50

Tape & reel specification

Tape		Symbol	Dimension (mm)		
<p>SECTION : A-A</p> <p>SECTION : B-B</p>		P0	4.00±0.20		
		P1	8.00±0.20		
		P2	2.00±0.20		
		D0	1.55±0.20		
		D1	1.55±0.20		
		E	1.75±0.15		
		F	5.50±0.20		
		W	12.00±0.20		
		A0	4.50±0.20		
		B0	6.80±0.20		
		K0	1.35±0.20		
		T	0.23±0.10		
		13" Reel		D2	330.0±5.0
				D3	73Min.
D4	13.5±2.5				
W1	16.0±3.0				
Quantity: 5000PCS					