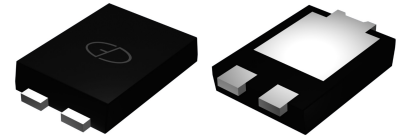


# GSGC0601A thru GSGC0607A

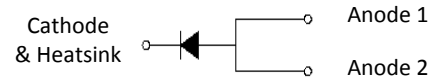
Surface Mount Glass Passivated Rectifier  
 Reverse Voltage 50-1000V Forward Current 6A

## Features

- Glass passivated standard rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity Level: 1, per J-STD-020
- Solder dip 260°C, 10 seconds
- Low profile



eSGC (TO-277)



## Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	GSGC0601A	GSGC0602A	GSGC0603A	GSGC0604A	GSGC0605A	GSGC0606A	GSGC0607A	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}^{1)}$	3.0							A
	$I_{F(AV)}^{2)}$	6.0							
Peak Forward Surge Current (8.3 ms single half sine wave superimposed on rated load)	$I_{FSM}$	180							A
Operating Junction and Storage Temperature	$T_J, T_{STG}$	- 55 to + 150							$^\circ\text{C}$

## Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Test Conditions	Symbol	Value	Unit
Instantaneous Forward Voltage	$I_F=6\text{ A}$	$V_F$	Typ:0.94 , Max:1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	$I_R$	10	$\mu\text{A}$
	$T_A=125^\circ\text{C}$		250	
Typical Reverse Recovery Time	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$	$t_{rr}$	4	$\mu\text{s}$
Typical Junction Capacitance	4.0 V, 1 MHz	$C_J$	35	pF
Typical Thermal Resistance	Junction to Ambient	$R_{\theta JA}^{1)}$	72	$^\circ\text{C/W}$
	Junction to Mount	$R_{\theta JM}^{2)}$	5	$^\circ\text{C/W}$

Notes: 1)Thermal resistance  $R_{\theta JA}$  is junction to ambient. Free air, mounted on P.C.B with recommended copper pad area, 2 OZ, FR4

2)Thermal resistance  $R_{\theta JM}$  is junction to mount. Mounted on P.C.B with 30\*30mm copper pad area

## Typical Characteristic Curves

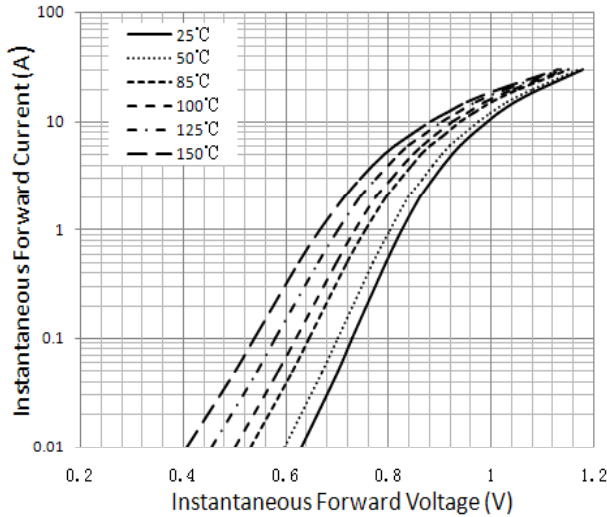


Figure 1. Typical Instantaneous Forward Characteristics

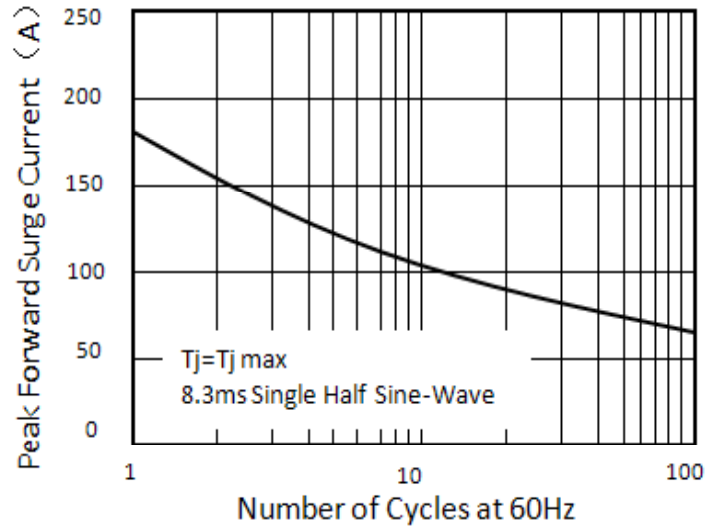


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

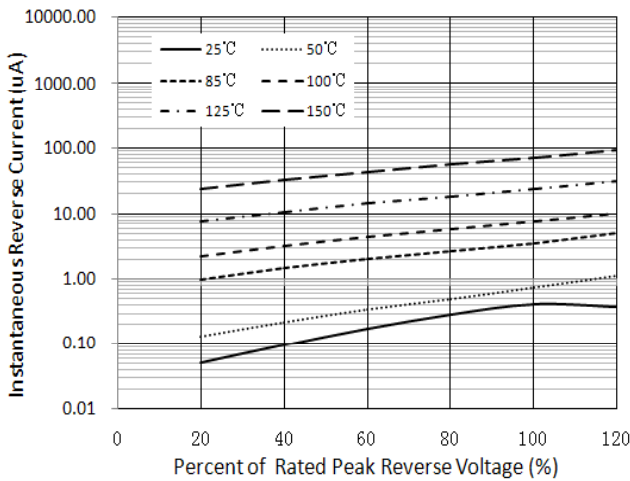


Figure 3. Typical Reverse Characteristics

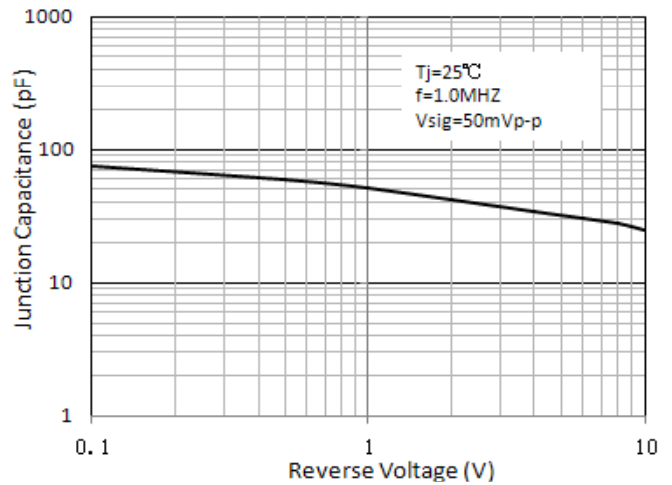


Figure 4. Typical Junction Capacitance

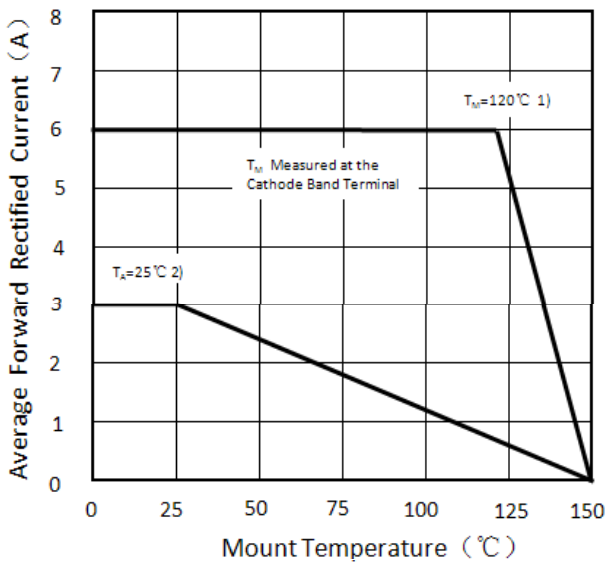


Figure 5. Forward Current Derating Curve

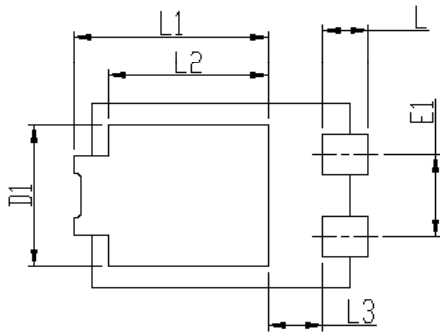
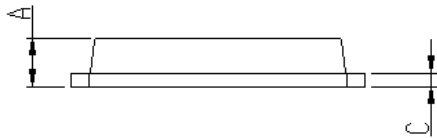
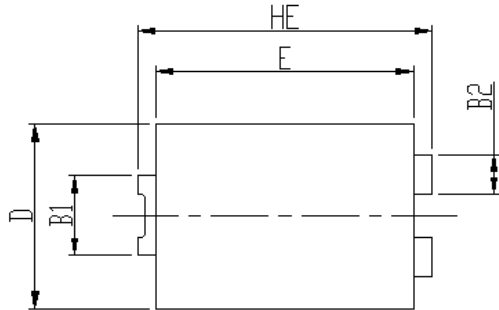
- 1) Mounted on P.C.B with 30\*30mm copper pad area
- 2) Free air, Mounted on recommended copper pad area FR4 PCB ( $R_{\theta JA} = 72^{\circ}\text{C/W}$ )

# GSGC0601A thru GSGC0607A

Surface Mount Glass Passivated Rectifier  
 Reverse Voltage 50-1000V Forward Current 6A

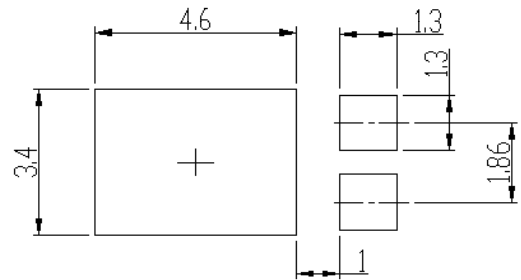
## Package Outline Dimensions

eSGC (TO-277)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86 Typ.		0.073 Typ.	

### Soldering footprint



## Packing Information

### Packing quantities:

5000 pcs/Reel , 12mm Tape, 13" Reel

### Tape & Reel Specification:

