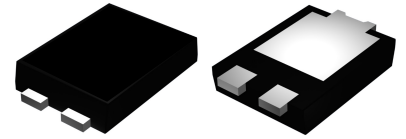
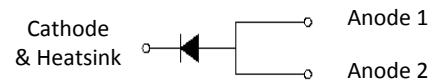


Features

- 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	SPC0601A	SPC0602A	SPC0603A	SPC0604A	SPC0605A	SPC0606A	SPC0607A	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	μA
	$T_A=125^\circ\text{C}$		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	μs
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

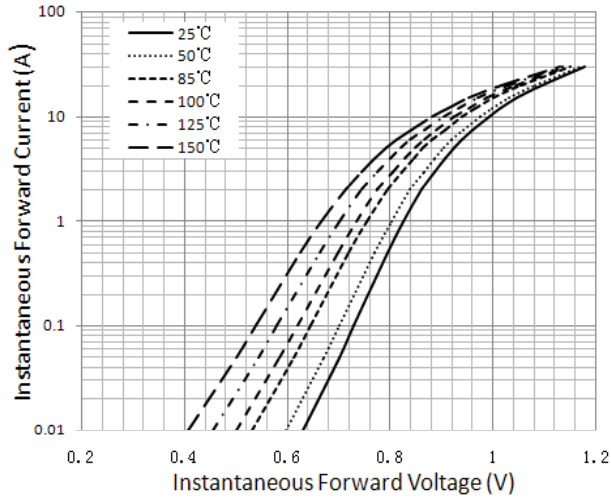


Figure 1. Typical Instantaneous Forward Characteristics

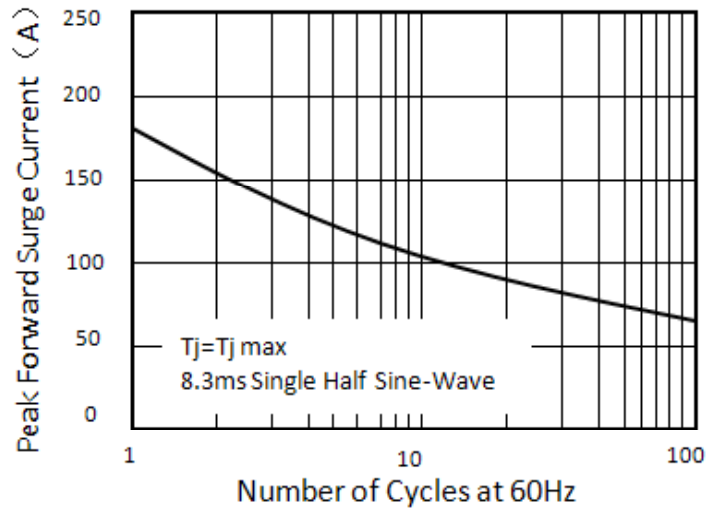


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

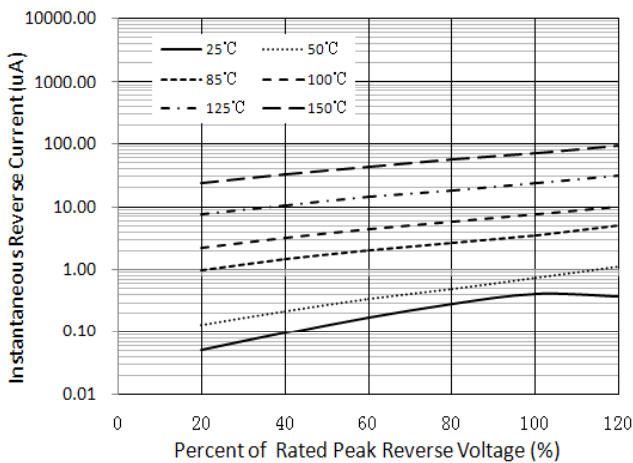


Figure 3. Typical Reverse Characteristics

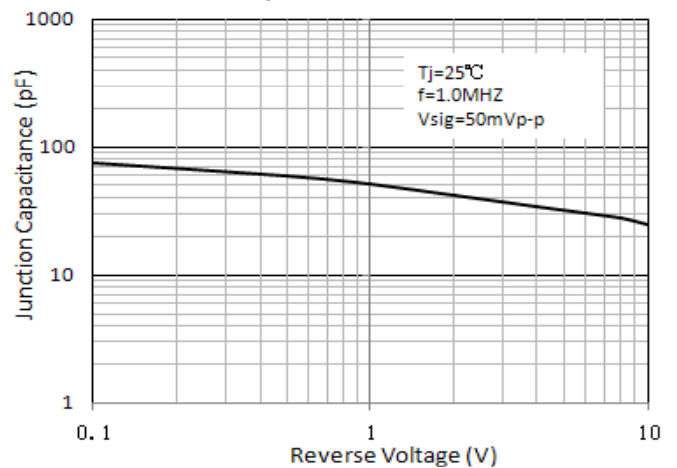


Figure 4. Typical Junction Capacitance

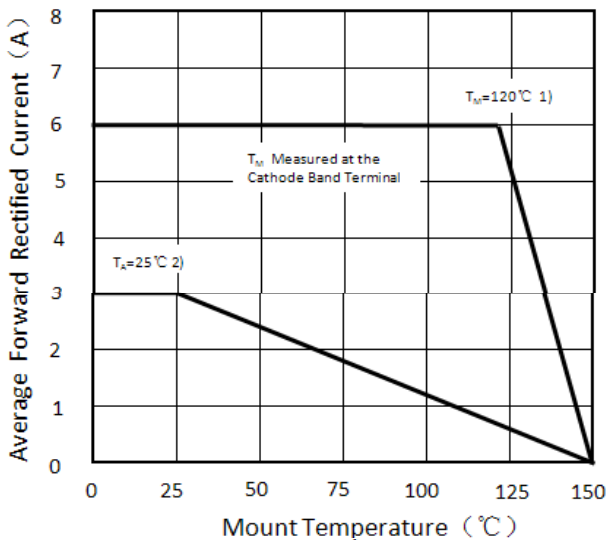


Figure 5. Forward Current Derating Curve

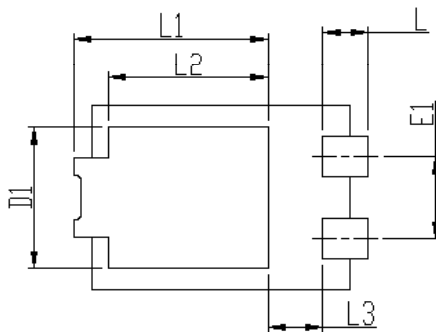
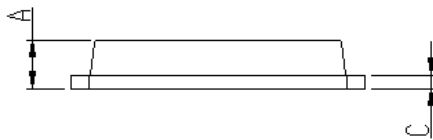
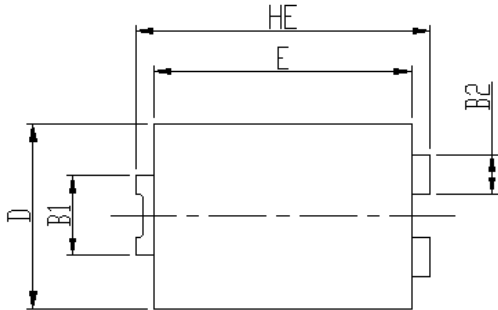
- 1) Mounted on P.C.B with 30*30mm copper pad area
- 2) Free air, Mounted on recommended copper pad area FR4 PCB ($R_{\theta JA}=72^{\circ}\text{C/W}$)

SPC0601A - SPC0607A

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

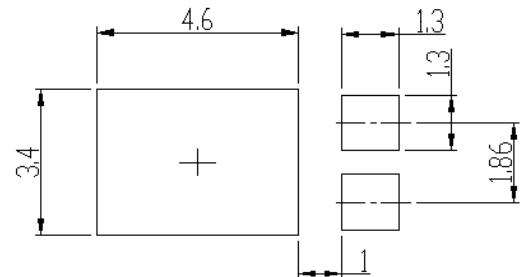
Package Outline Dimensions

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:

