

### Features

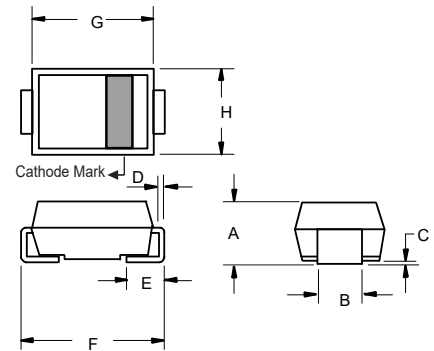
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Glass Passivated Chip Junction
- High Junction Temperature Capability
- Fully Automotive Qualified to AEC-Q101

# 5 Amp General Purpose Rectifier 400 to 600 Volts

### Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value		Unit
		S5GLQ	S5JLQ	
Peak Repetitive Reverse Voltage	$V_{RRM}$	400	600	V
Working Peak Reverse Voltage	$V_{RWM}$			
DC Blocking Voltage	$V_R$			
RMS Reverse Voltage	$V_{RMS}$	280	420	V
Average Rectified Forward Current @ $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5		A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	120		A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		240		
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	59.76		A <sup>2</sup> s

### SMC (DO-214AB)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

### Marking Code

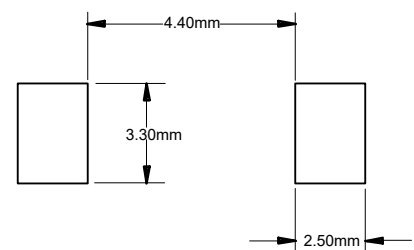
Part Number	Marking Code
S5GLQ	S5GL
S5JLQ	S5JL

### Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	<p>XXXX = Marking Code YYWW = Date Code</p>	
2	Anode		

- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

### Suggested Solder Pad Layout



## Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		175	°C
$T_{stg}$	Storage Temperature Range		-55		175	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		16		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		60		°C/W

Note:

1. Mounted on P.C.B. with 16mm\*16mm copper pad areas.

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=5A; T_J=25^\circ C$			1.1	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			5 200	$\mu A$
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		47		pF
Reverse Recovery Time	$t_{rr}$	$I_F=0.5A; I_R=1.0A; I_{rr}=0.25A; T_J=25^\circ C$		3.5		$\mu S$

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

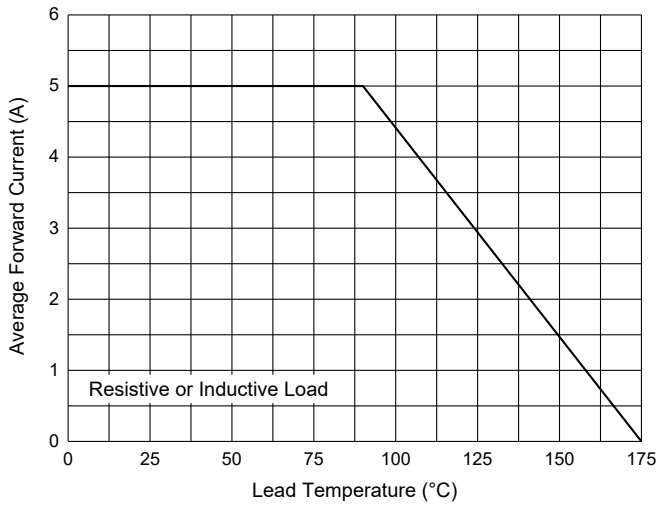


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

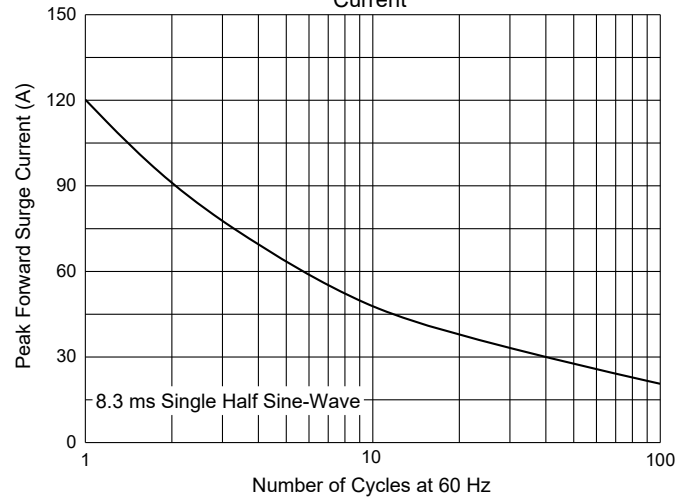


Fig. 3 - Typical Forward Characteristics

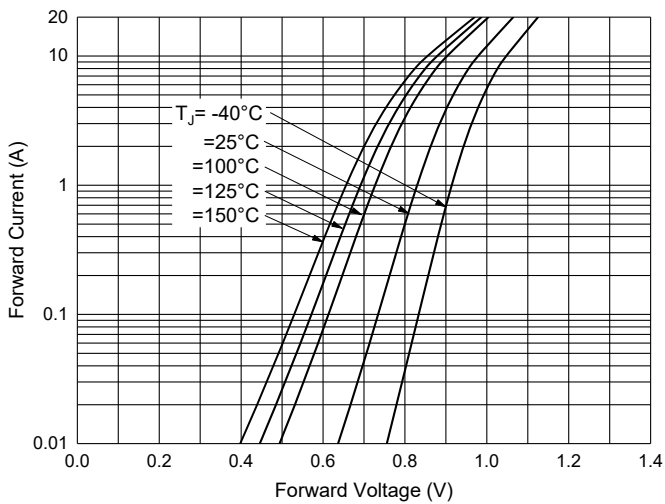


Fig. 4 - Typical Reverse Leakage Characteristics

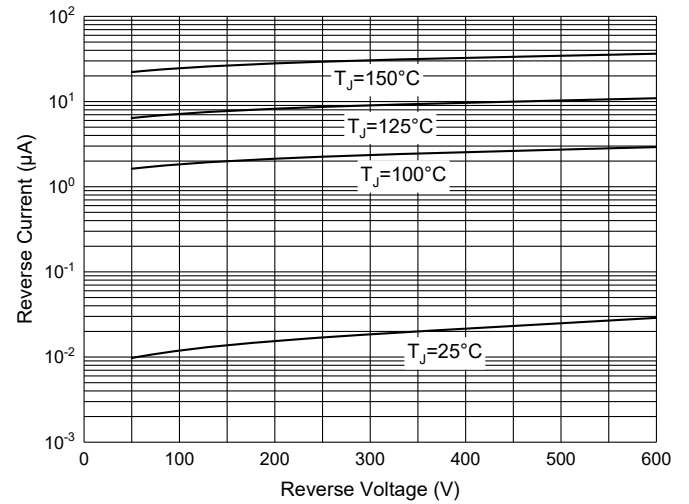
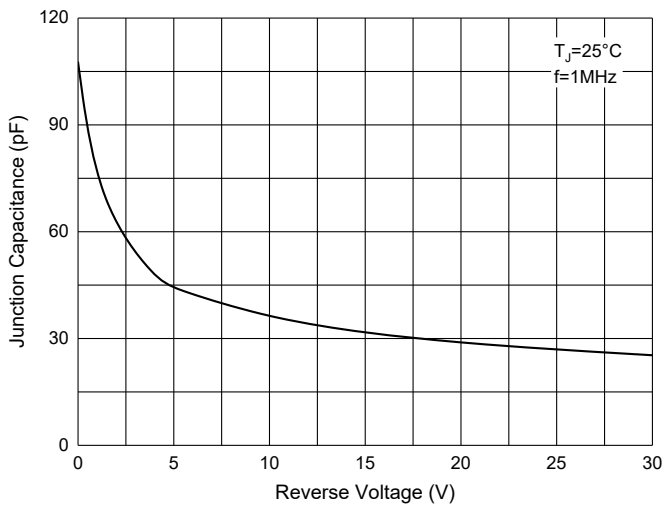


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

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