

GS313C thru GS320C

Surface Mount General Purpose Rectifiers
 Reverse Voltage 1300V to 2000V Forward Current 3A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



DO-214AB (SMC)

Absolute Maximum Ratings and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, Single phase ,half wave 60Hz, resistive or inductive load. For capacitive load, derated by 20%.)

Parameter	Symbol	GS313C	GS316C	GS318C	GS320C	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1300	1600	1800	2000	V
Maximum RMS Voltage	V_{RMS}	910	1120	1260	1400	V
Maximum DC Blocking Voltage	V_{DC}	1300	1600	1800	2000	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	3.0				A
Peak Forward Surge Current (8.3ms Half Sine-wave Superimposed on Rated Load (JEDEC method))	I_{FSM}	100				A
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.15				V
Maximum Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}C$	I_R	5			uA
	$T_A=125^{\circ}C$		100			
Typical Thermal Resistance	$R_{\theta JA}$	40				°C/W
	$R_{\theta JL}$	15				
Junction Temperature	T_J	-55 to +150				°C
Storage Temperature	T_{STG}	-55 to +150				°C

Ratings and Characteristic Curves

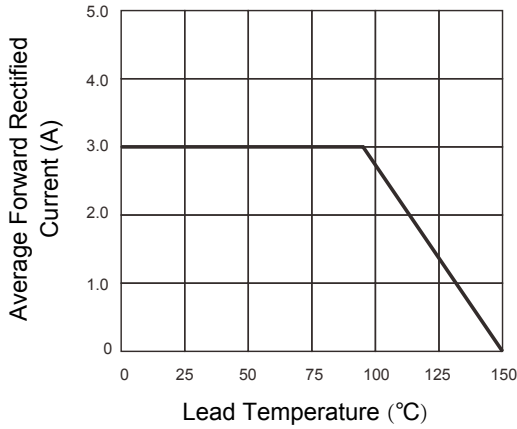


Figure 1. Forward Current Derating Curve

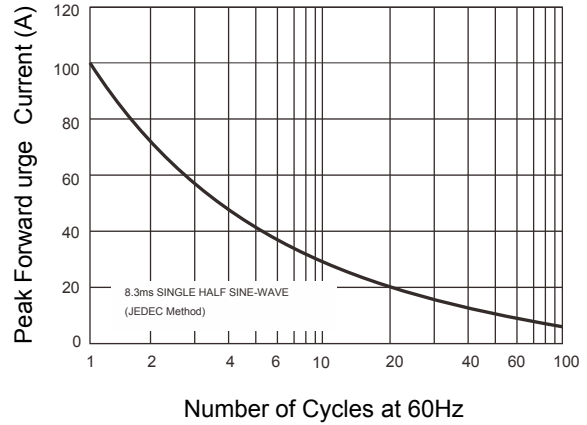


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

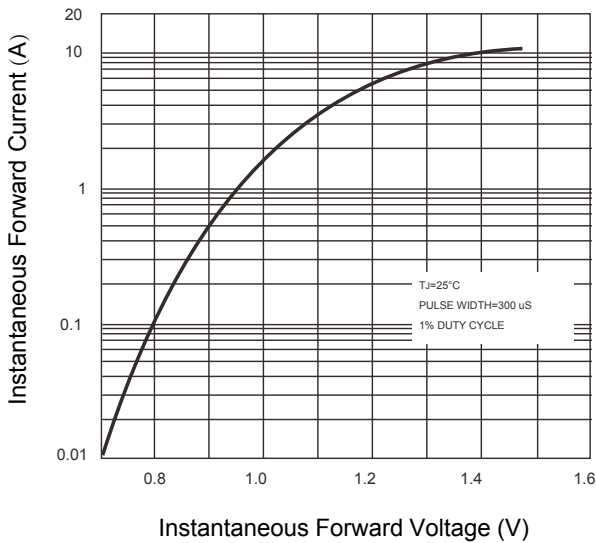


Figure 3. Typical Instantaneous Forward Characteristics

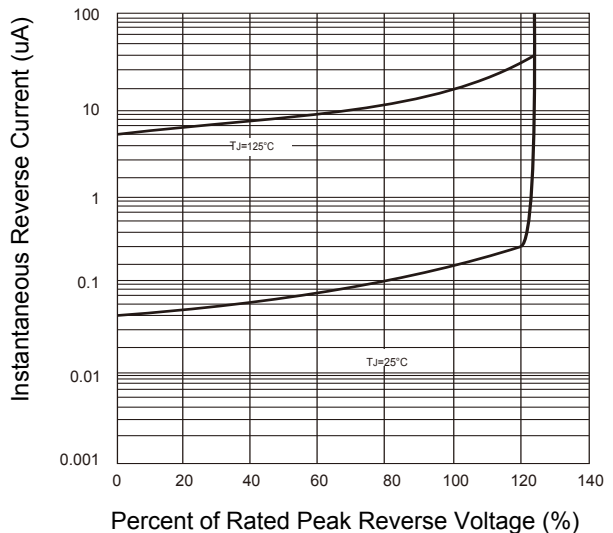
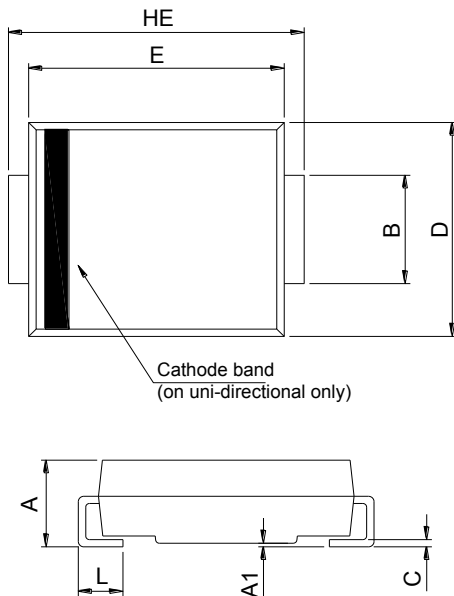


Figure 4. Typical Reverse Leakage Characteristics

GS313C thru GS320C

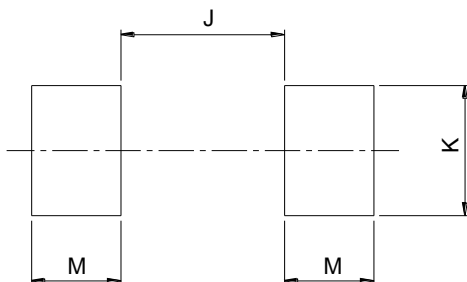
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Package Outline Dimensions DO-214AB (SMC)



SMC (DO-214AB)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.00	2.62	0.079	0.103
A1	0.00	0.20	0.000	0.008
B	2.75	3.25	0.108	0.128
C	0.15	0.31	0.006	0.012
D	5.58	6.22	0.220	0.245
E	6.60	7.15	0.260	0.281
HE	7.75	8.15	0.305	0.321
L	0.76	1.60	0.030	0.063

Recommended Pad Layout



SMC Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	4.60	-	0.181
K	3.20	-	0.126	-
M	2.00	-	0.079	-

Order information

Device	Package	Marking	Quantity	HSF Status
GS313C	SMC	S313C	3,000pcs / Reel	RoHS Compliant
GS316C	SMC	S316C	3,000pcs / Reel	RoHS Compliant
GS318C	SMC	S318C	3,000pcs / Reel	RoHS Compliant
GS320C	SMC	S320C	3,000pcs / Reel	RoHS Compliant

For more information, please contact us at: inquiry@goodarksemi.com