

OM SENI

GS3AC-GS3NC General-Purpose Rectifiers

Features

- Low-Profile Package
- Glass-Passivated Junction
- UL Flammability Classification:94V-0
- UL Certified,UL#E258596



SMC/DO-214AB

COLOR BAND DENOTES CATHODE



Ordering Informations

Part Number	Top Mark	Package	Packing Method
GS3AC	GS3AC	DO-214AB (SMC)	Tape and Reel
GS3BC	GS3BC	DO-214AB (SMC)	Tape and Reel
GS3DC	GS3DC	DO-214AB (SMC)	Tape and Reel
GS3GC	GS3GC	DO-214AB (SMC)	Tape and Reel
GS3JC	GS3JC	DO-214AB (SMC)	Tape and Reel
GS3KC	GS3KC	DO-214AB (SMC)	Tape and Reel
GS3MC	GS3MC	DO-214AB (SMC)	Tape and Reel
GS3NC	GS3NC	DO-214AB (SMC)	Tape and Reel

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at TA=25°C unless otherwise noted.

Symbol	Parameter	Value								Unit
		GS3AC	GS3BC	GS3DC	GS3GC	GS3JC	GS3KC	GS3MC	GS3NC	
VRRM	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	1200	V
F(AV)	Average Rectified Forward Current TL=105°C	3.0								A
IsM	Non-Repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	100								A
TsTG	Storage Temperature Range	-55 to+150								°C
TJ	Operating Junction Temperature Range	-55 to+150								°C

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Thermal Characteristics⁽¹⁾

Symbol	Parameter	Value	Unit
P_D	Power Dissipation	2.6	W
$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient	100	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction-to-Lead	13	°C/W

Note:

- Device is mounted on FR-4 PCB 0.013 mm. Land pattern size: refer to the package drawing.
Trace size: force line = 50 mil & sense line = 4 mil.

Electrical Characteristics

Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

Symbol	Parameter	Conditions	Value						Unit
			S3A	S3B	S3D	S3G	S3J	S3K	
V_F	Maximum Forward Voltage	$I_F = 3.0\text{ A}$	1.2						V
t_{rr}	Maximum Reverse Recovery Time	$I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$	2.5						μs
I_R	Maximum Reverse Current at rated V_R	$T_A = 25^\circ\text{C}$	5						μA
		$T_A = 125^\circ\text{C}$	250						
C_T	Typical Total Capacitance	$V_R = 4.0\text{ V}$, $f = 1.0\text{ MHz}$	60						pF

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Typical Performance Characteristics

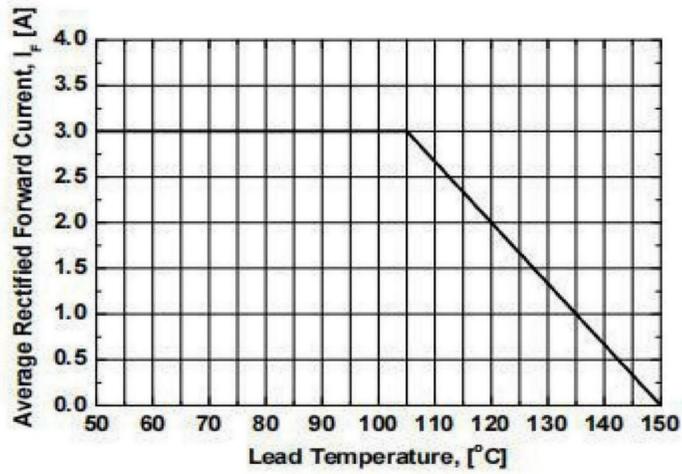


Figure 1. Forward Current Derating Curve

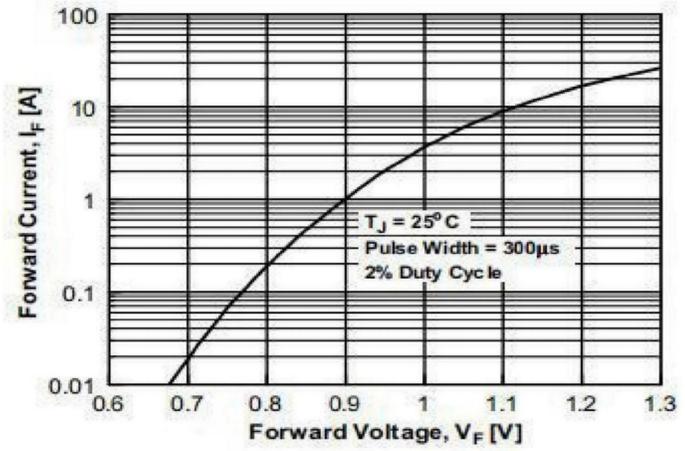


Figure 2. Forward Voltage Characteristics

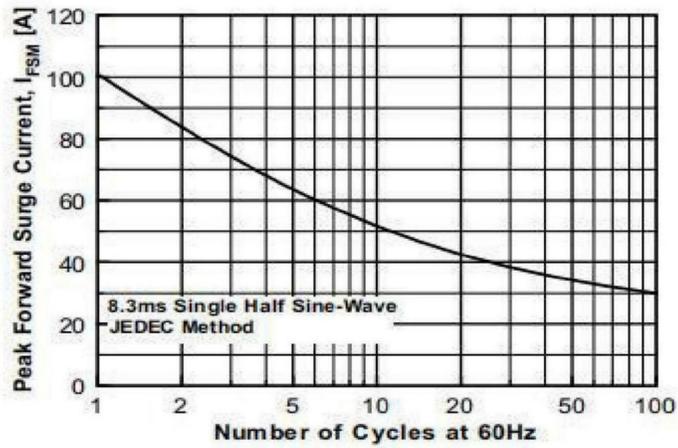


Figure 3. Non-Repetitive Surge Current

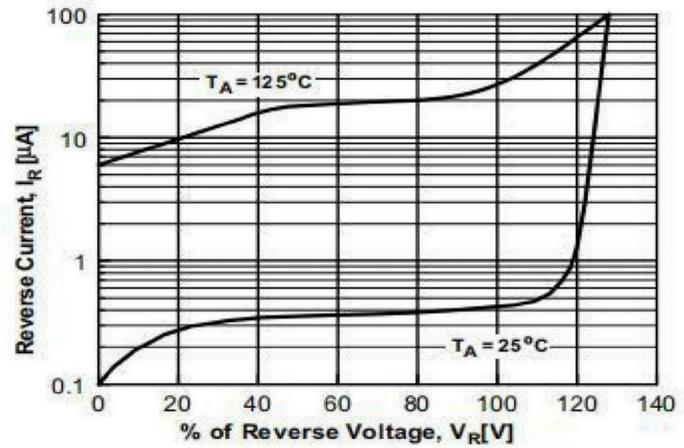


Figure 4. Reverse Current vs. Reverse Voltage

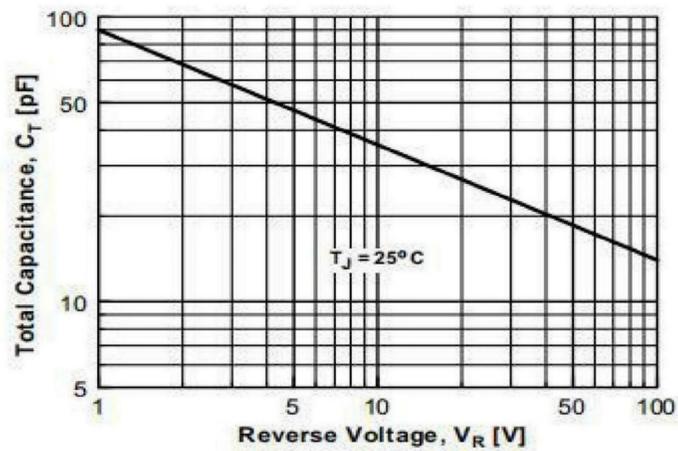


Figure 5. Total Capacitance

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Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMC	R3	0.257	3000	6000	30000	13"

Package Outline Dimensions (SMC/DO-214AB)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.85	3.27	0.112	0.129
B	6.60	7.11	0.261	0.281
C	5.59	6.22	0.221	0.246
D	1.99	2.61	0.078	0.103
E	0.76	1.52	0.030	0.060
F	-	0.20	-	0.008
G	7.75	8.13	0.306	0.321
H	0.15	0.31	0.006	0.012

Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	3.82	-	0.151	-
J	3.03	-	0.120	-
K	-	3.84	-	0.152