

GSDU3xCF Series

High Efficiency Diodes

Product Description

Reverse Voltage 200V to 1000V.
Current 3A

Features

- High Forward Surge Current Capability
- Low Reverse Leakage Current
- Glass Passivated Chip Junction

Mechanical Data

- SMC (DO-214AB) Package
- The Color Band denotes Cathode End
- RoHS Compliant and Halogen Free

Package and Pin Assignment

SMC (DO-214AB)		Equivalent Circuit	
			
Pin	Description	Pin	Description
1	Anode	2	Cathode

Ordering and Marking Information

Ordering Information				
Part Number	Marking Code	V_{RRM}	Package	Quantity/Reel
GSDU3DCF	US3D	200V	SMC (DO-214AB)	3,000 PCS
GSDU3GCF	US3G	400V		
GSDU3MCF	US3M	1000V		

Maximum Ratings and Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Description	U3D	U3G	U3M	Unit
V _{RRM}	Maximum Repetitive Peak Reverse Voltage	200	400	1000	V
V _{RMS}	Maximum RMS Voltage	140	280	700	
V _{DC}	Maximum DC Blocking Voltage	200	400	1000	
I _(AV)	Maximum Average Forward Rectified Current	3			A
I _{FSM}	Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave Superimposed on rated Load (JEDEC Method)	100			A
V _F	Maximum Forward Voltage at 3.0A	1	1.3	1.7	V
I _R	Maximum Reverse Current at Rated DC Blocking Voltage	T _J =25°C	5		μA
		T _J =100°C	100		
t _{rr}	Maximum Reverse Recovery Time ¹	50		75	ns
C _J	Typical Junction Capacitance ²	75		63	pF
R _{θJA}	Typical Thermal Resistance ³	47			°C/W
T _J	Junction Temperature Range	-55 to 150			°C
T _{STG}	Storage Temperature Range	-55 to 150			°C

NOTE:

1. Reverse recovery condition IF=0.5A, IR=1.0A, Irr=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0 V_{DC}.
3. Mounted with 0.4" x 0.4" (10.0 x 10.0mm) Copper Pad Areas

Typical Characteristics (T_A=25°C unless otherwise specified)

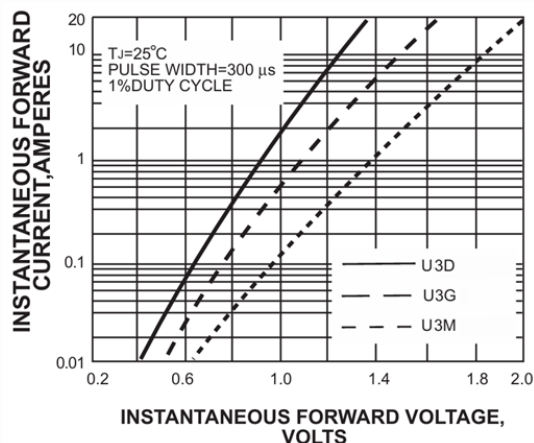


FIG.1 Forward Characteristics

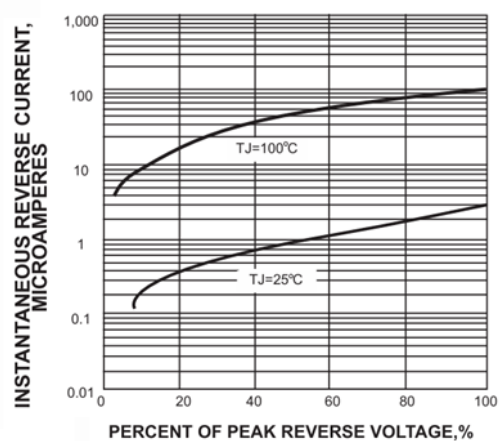


FIG.2 Reverse Characteristics

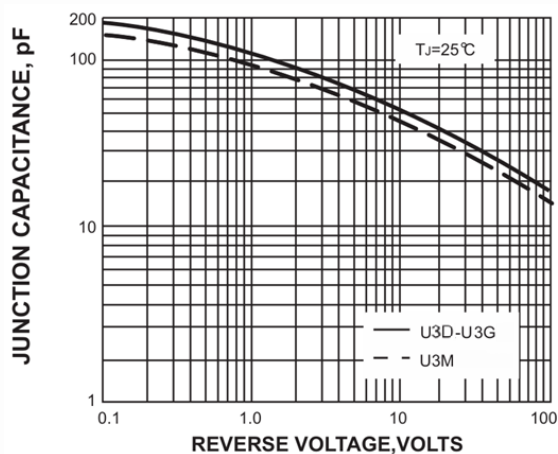


FIG.3 Junction Capacitance

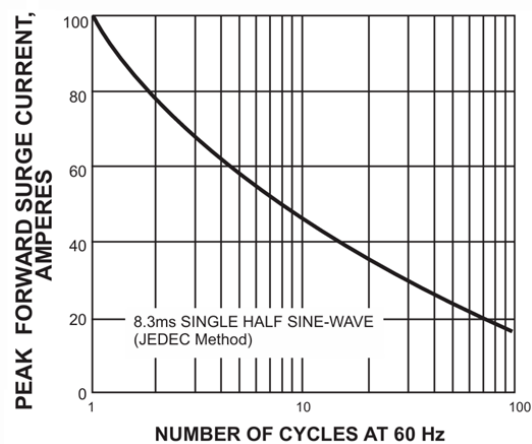


FIG.4 Maximum Non-Repetitive Peak Forward Surge Current

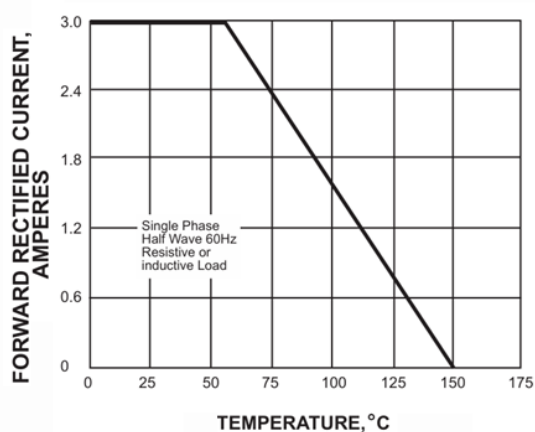


FIG.5 Forward Current Derating Curve

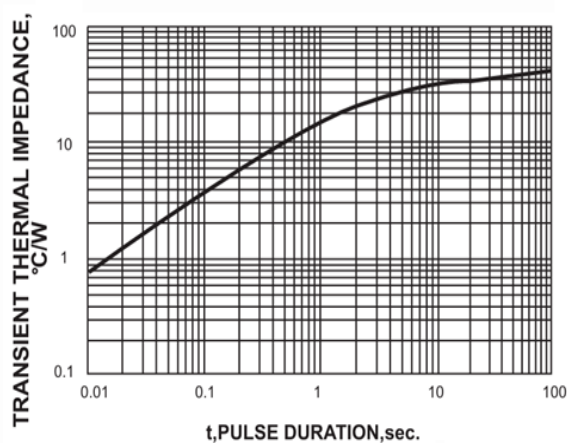
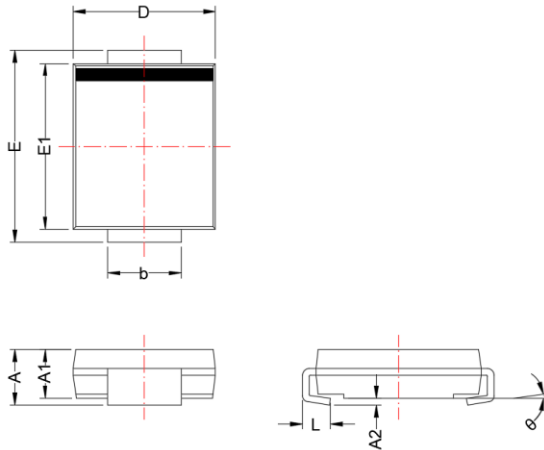


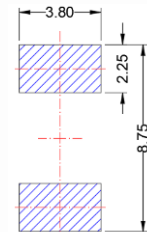
FIG.6 Transient Thermal Impedance

SMC (DO-214AB)

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions				
Symbol	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	1.95	2.80	0.077	0.110
A1	1.90	-	0.075	-
A2	0.00	0.30	0.000	0.012
b	2.90	3.20	0.114	0.126
D	5.55	6.25	0.219	0.246
E	7.75	8.15	0.305	0.321
E1	6.60	7.15	0.260	0.281
L	0.75	1.60	0.030	0.063
θ	0°	8°	0°	8°

NOTE:

Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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CONTACT US

GS Headquarter	
	4F, NO.43-1, Lane 11, Sec. 6, Minquan E. Rd Neihu District, Taipei City 114761, Taiwan (R.O.C).
	886-2-2657-9980
	886-2-2657-3630
	sales_twn@gs-power.com

RD Division	
	824 Bolton Drive Milpitas. CA. 95035
	1-408-457-0587