GSDSS12W Series

Surface Mount Schottky Rectifiers

Product Description

Reverse Voltage 20V to 100V Forward Current 1.0A

Features

- Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity diodes in surface mount applications
- Schottky barrier junction, majority carrier conduction
- Guard ring for stress protection
- Low forward voltage drop
- High current capability
- High surge capability
- High reliability
- Lead(Pb)-Free

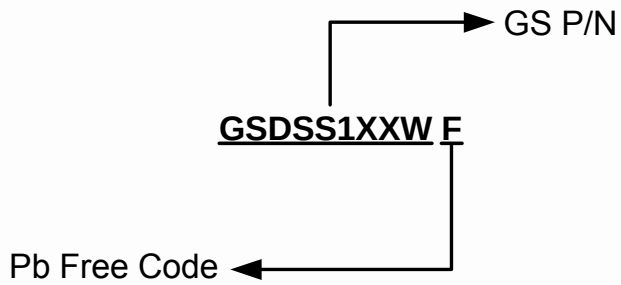
Mechanical Data

- Case : Molded plastic, SMA(W) Package
- Epoxy meets flammability requirements per UL 94V-0
- All terminal leads are readily solderable
- Weight approx : 70 mg

Packages

SMA(W)
Color Band Denotes CATHODE

Ordering Information



Part Number	Package	Quantity
GSDSS12WF Series	SMA(W)	5000 PCS

Marking Information

P/N	Part Marking	Package
GSDSS12WF	S12W	SMA(W)
GSDSS13WF	S13W	SMA(W)
GSDSS14WF	S14W	SMA(W)
GSDSS15WF	S15W	SMA(W)
GSDSS16WF	S16W	SMA(W)
GSDSS18WF	S18W	SMA(W)
GSDSS110WF	S1AW	SMA(W)

Electrical Characteristics

(Rating 25°C Ambient Temperature Unless Otherwise Specified.)

Symbol	Conditions		GSDSS12WF	GSDSS13WF	GSDSS14WF	GSDSS15WF	Unit
V_{RRM}	Maximum Recurrent Peak Reverse Voltage		20	30	40	50	V
V_{RMS}	Maximum RMS Voltage		14	21	28	35	V
V_{DC}	Maximum DC Blocking Voltage		20	30	40	50	V
V_F	Maximum Instantaneous At 1.0A DC		0.45	0.55		0.70	V
Symbol	**Conditions**		**GSDSS16WF**	**GSDSS18WF**		**GSDSS110WF**	**Unit**
V_{RRM}	Maximum Recurrent Peak Reverse Voltage		60	80		100	V
V_{RMS}	Maximum RMS Voltage		42	56		70	V
V_{DC}	Maximum DC Blocking Voltage		60	80		100	V
V_F	Maximum Instantaneous At 1.0A DC		0.70	0.85			V
I_R	Maximum Reverse Leakage Current at rated V_R	T_J = 25°C	0.5				mA
		T_J = 125°C	20				
$I_{F(AV)}$	Maximum Average Forward Rectified Current		1.0				A
I_{FSM}	Peak Forward Surge Current (8.3ms Single Half Sine-Wave)		30				A
$R_{\Theta JL}$	Typical Thermal Resistance (Junction to lead)		35				°C/W
T_J	Operating Temperature Range		-55 to +125				°C
T_{STG}	Storage Temperature Range		-55 to +150				°C

Typical Characteristics

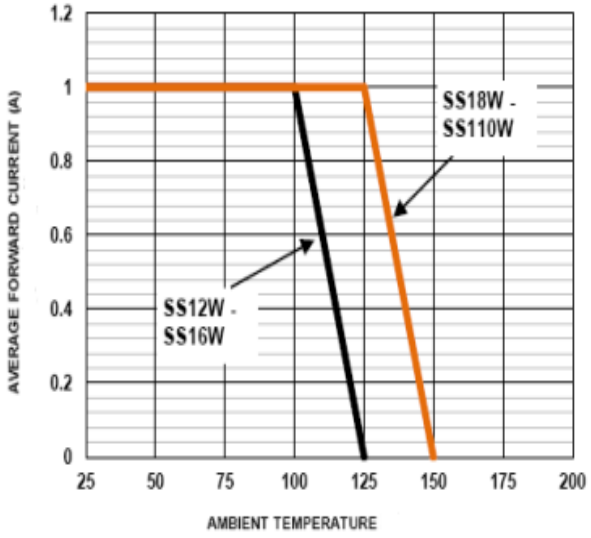


Figure 1. Forward Current Derating Curve

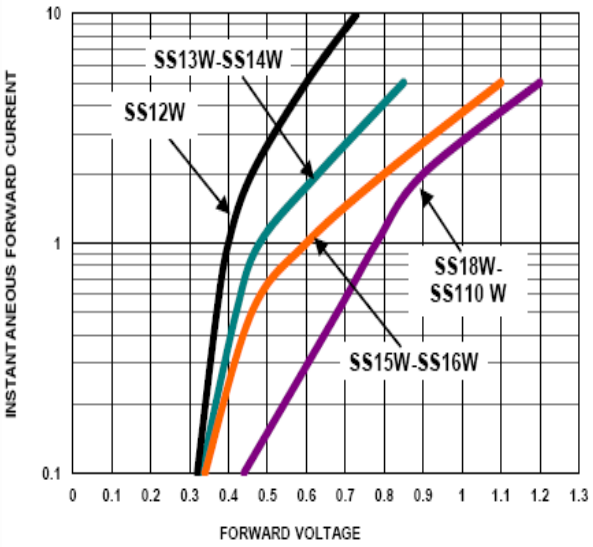


Figure 2. Forward Voltage Characteristics

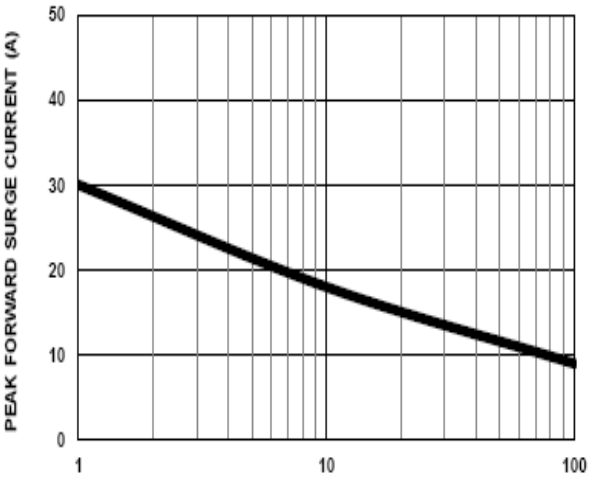


Figure 3. Non-Repetitive Surge Current

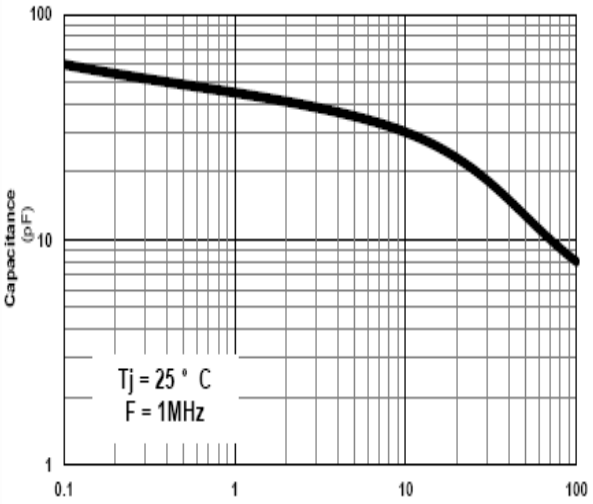
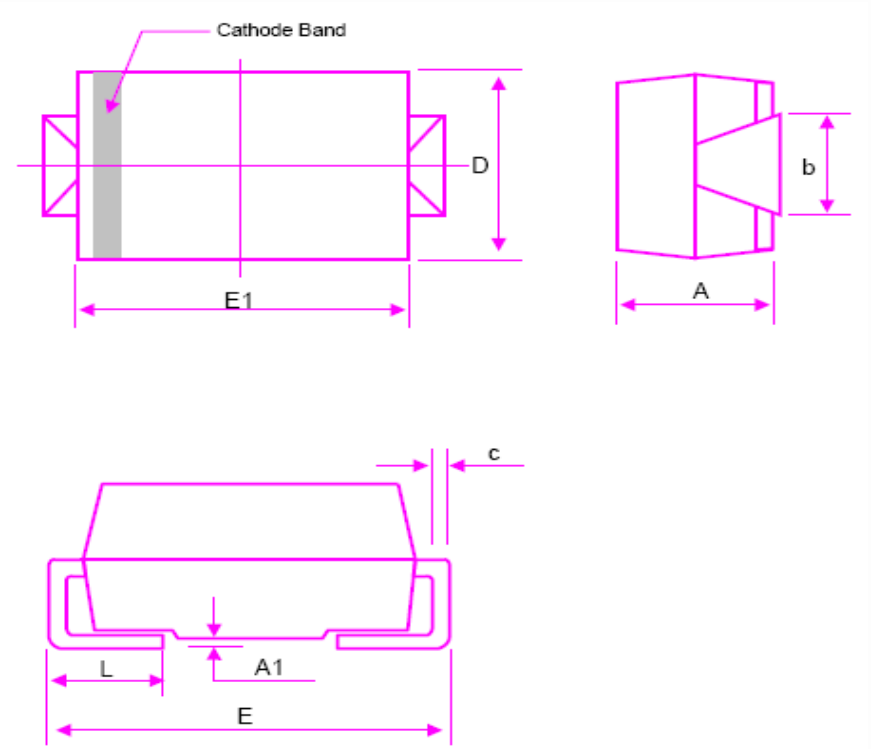


Figure 4. Junction Capacitance

Package Dimension

SMA(W)



Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.70	2.31	0.067	0.091
A1	0.10	0.20	0.004	0.008
b	1.29	1.70	0.051	0.067
c	0.15	0.31	0.006	0.012
D	2.18	2.79	0.086	0.110
E	4.70	5.31	0.185	0.209
E1	4.06	4.57	0.160	0.180
L	0.89	1.50	0.035	0.059

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