

GSDSM17 Series

Surface Mount Schottky Power Rectifiers

Product Description

Schottky Barrier Rectifiers 1.0A / 20V-40V

Using the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes, in surface mount applications where compact size and weight are critical to the system

Features

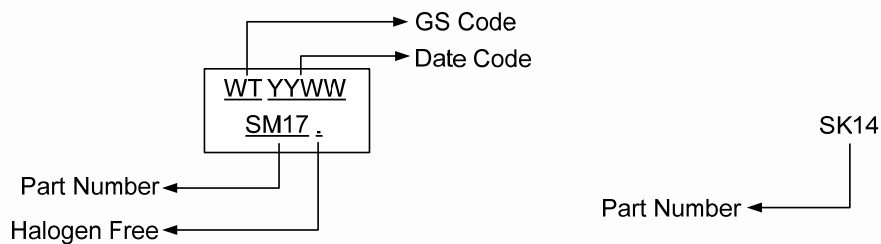
- Low Forward Voltage
- Low Switching Noise
- High Surge Capacity
- Guarantee Reverse Avalanche
- Guarding For Stress Protection
- Low Power Loss & High Efficiency
- 125°C Operating Junction Temperature
- Low Stored Charge Majority Carrier Conduction
- Case : Epoxy, Molded

Packages



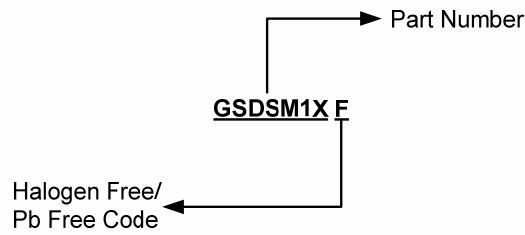
SMA(DO-214AC)

Marking Information



Part Number	Package	Marking
GSDSM17F	SMA(DO-214AC)	WTYYWW SM17.
GSDSM19F	SMA(DO-214AC)	SK14

Ordering Information



Part Number	Package	Quantity
GSDSM17F	SMA(DO-214AC)	5000 PCS
GSDSM19F	SMA(DO-214AC)	5000 PCS

Electrical Characteristics

Symbol	Conditions	GSDSM17F	GSDSM19F	Unit
V_{RRM}	Peak Repetitive Reverse Voltage			
V_{RWM}	Working Peak Reverse Voltage	20	40	V
V_R	DC Blocking Voltage			
$V_{R(RMS)}$	RMS Reverse Voltage	14	28	V
V_F	Maximum Instantaneous Forward Voltage ($I_F=1.0A$)	0.45	0.5	V
$I_{F(AV)}$	Average Rectifier Forward Current	1.0		A
I_{FM}	Peak Repetitive Forward Current (Rate V_R , Square Wave, 20 KHz)	1.0		A
I_{FSM}	Non-Repetitive Peak Square Current (Surge Applied at Rated Load Condition Half wave, Single Phase, 60Hz)	25		A
I_R	Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=25^\circ C$)	0.5		mA
	Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=100^\circ C$)	50		
C_P	Typical Junction Capacitance ($V_R=4.0V$, $f=1.0MHz$)	50		pF
$R_{\theta JA}$	Thermal Resistance Junction To Ambient	88		$^\circ C/W$
$R_{\theta JC}$	Thermal Resistance Junction To Case	40		$^\circ C/W$
T_J	Junction Temperature Range	+125		$^\circ C$
T_{STG}	Storage Temperature Range	-65 to +125		$^\circ C$
T_{OP}	Operating Ambient Temperature Range	-65 to +150		$^\circ C$

Typical Characteristics

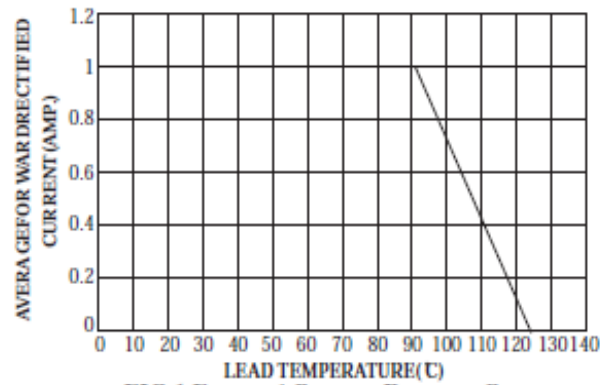


FIG.1 Forward Current Derating Curve

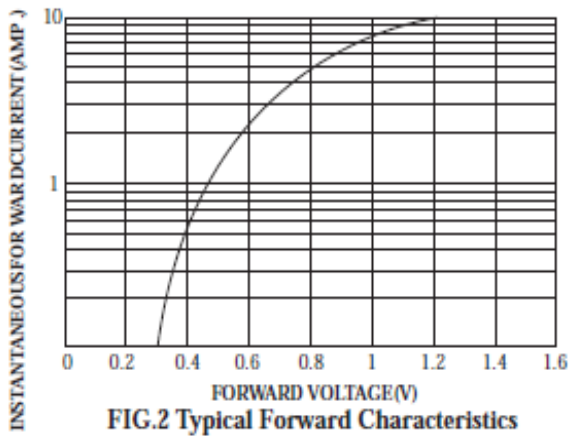


FIG.2 Typical Forward Characteristics

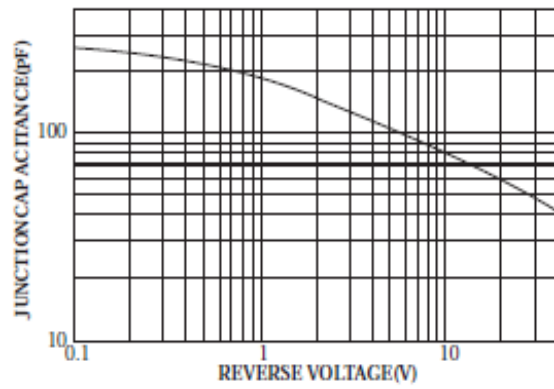


FIG.3 Typical Junction Capacitance

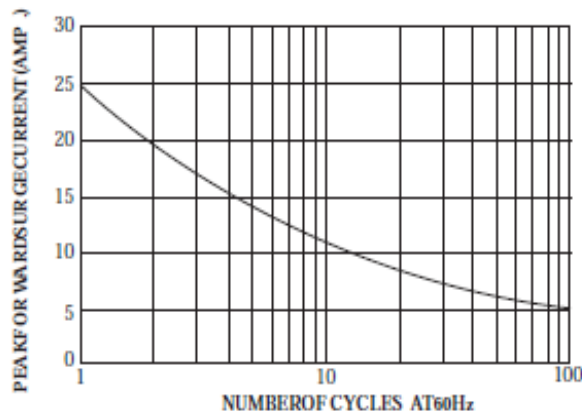
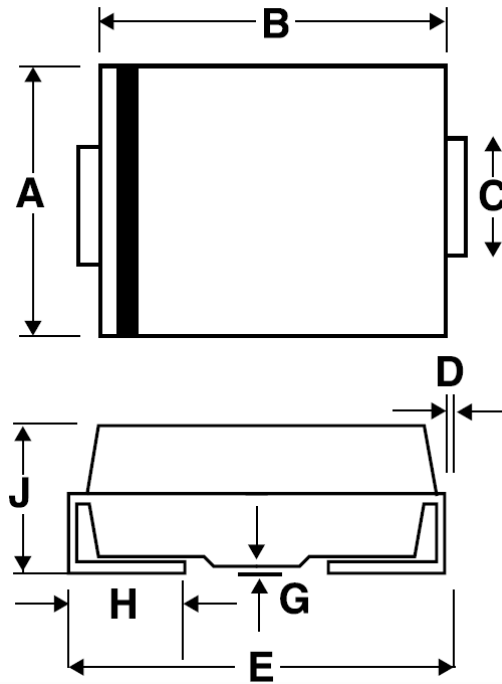


FIG.4 Peak Forward Surge Current

Package Dimension

SMA(DO-214AC)




Dimensions


Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	2.20	2.92	0.086	0.114
B	4.00	4.60	0.157	0.181
C	1.27	1.63	0.050	0.064
D	0.15	0.31	0.005	0.012
E	4.48	5.59	0.176	0.220
G	0.10	0.20	0.003	0.007
H	0.76	1.52	0.029	0.059
J	1.70	2.62	0.069	0.103

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