Technical Data *Green Products*

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10MQ100N-S SCHOTTKY RECTIFIER

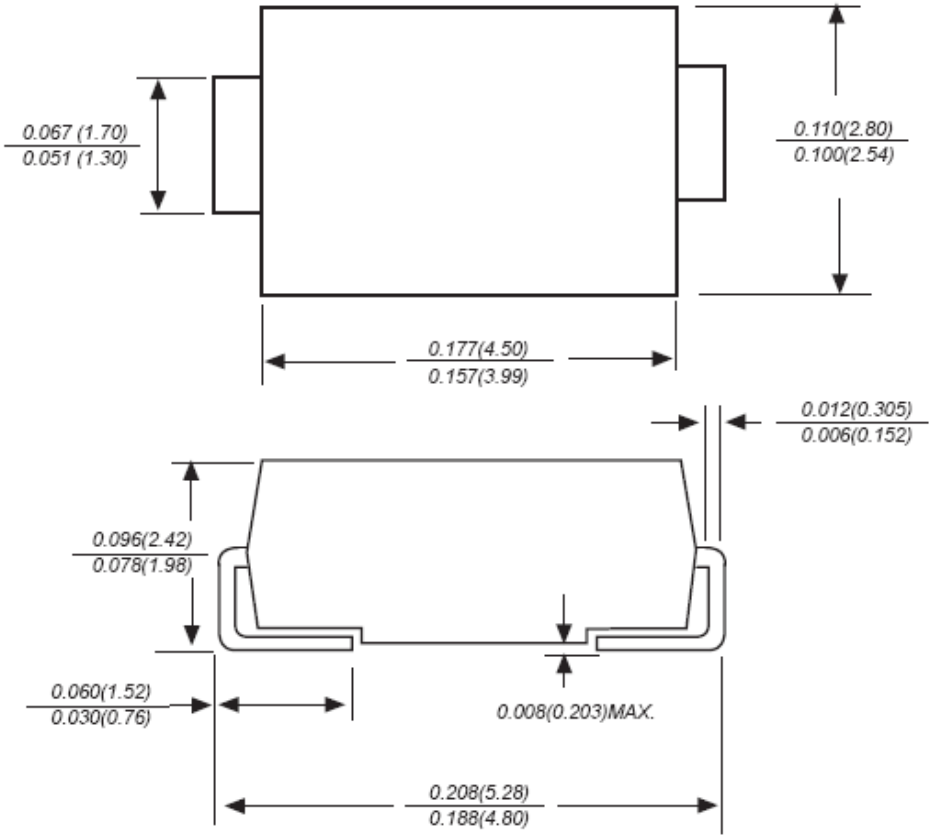
Applications:

- **Disk Drives**
- **Switching power supply**
- **Converters**
- **Free-Wheeling diodes**
- **Reverse battery protection**
- **Battery Charging**

Features:

- **Small foot print, surface moutable**
- **Low forward voltage drop**
- **High frequency operation**
- **Guard ring for enhanced ruggedness and long term reliability**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Mechanical Dimensions (In Inches / mm):



SMA (DO-214AC)

SANGDEST
MICROELECTRONICS

10MQ100N-S

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Marking Diagram:

Where XXXXX is YYWWL

S	= Device Type
A	= Package Type
1	= Forward Current (1A)
J	= Reverse Voltage (100V)
YY	= Year
WW	= Week
L	= Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
10MQ100N-S	SMA (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	100	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_L =105°C, rectangular wave form	1.5	A
DC Current	$I_{F(DC)}$	DC@T_L =120°C	2.1	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	36	A

• Weiqi Street, Airport Development Zone, Jiangning District, Nanjing, China 211113 (86) 25-87123907 •
• FAX (86) 25-87123900 • World Wide Web Site - http:// www.smc-diodes.com • E-Mail Address - sales@ sangdest.com.cn •

Electrical Characteristics:

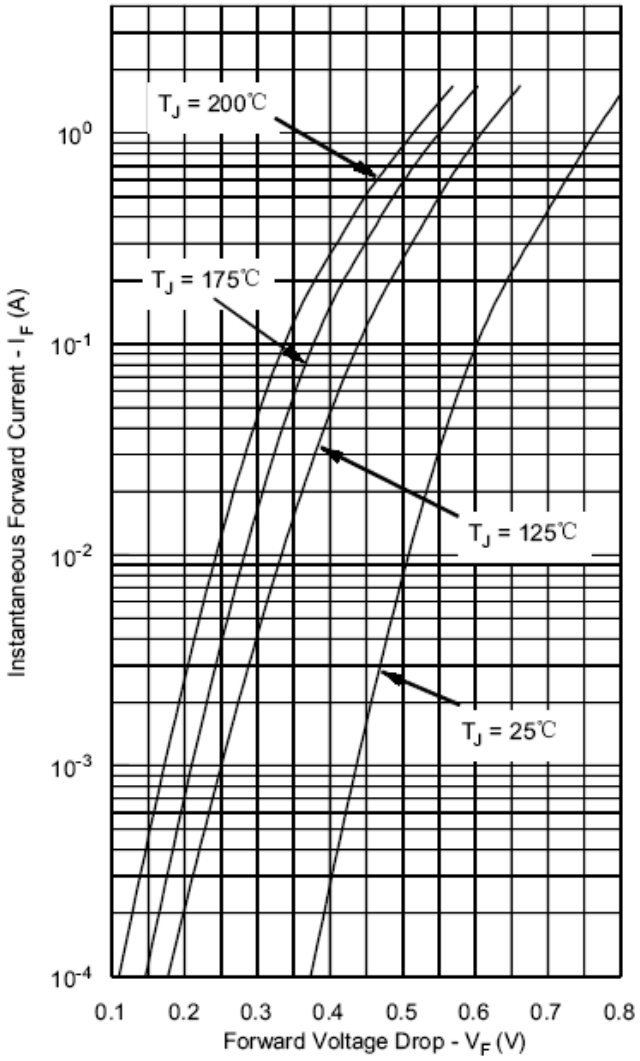
Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 1 A, Pulse, T_J = 25 °C @ 1.5 A, Pulse, T_J = 25 °C	0.78 0.85	V
	V_{F2}	@ 1 A, Pulse, T_J = 125 °C @ 1.5 A, Pulse, T_J = 125 °C	0.63 0.68	V
Reverse Current *	I_{R1}	@V_R = Rated V_R, Pulse, T_J = 25 °C	0.1	mA
	I_{R2}	@V_R = Rated V_R, Pulse, T_J = 125 °C	1	mA
Junction Capacitance	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	38	PF
Typical Series Inductance	L_S	Measured lead to lead 5 mm from package body	2.0	nH
Voltage Rate of Change	dv/dt	-	10,000	V/μs

* Pulse Width < 300μs, Duty Cycle < 2%

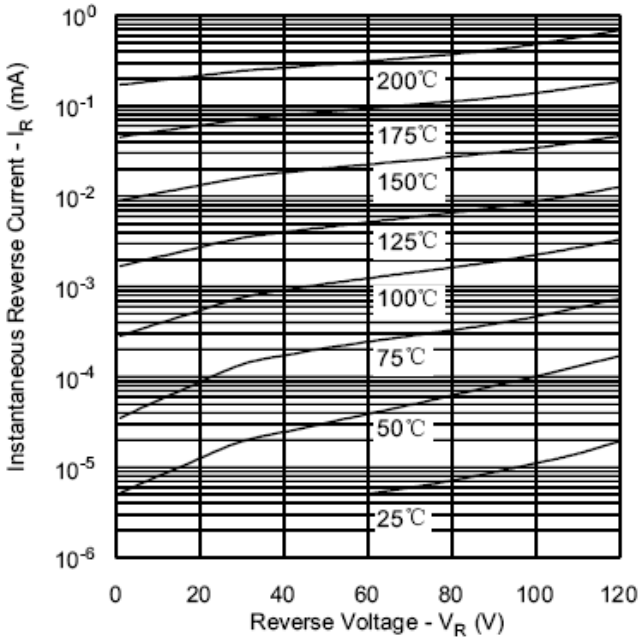
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Ambient	$R_{\theta JA}$	DC operation	80	°C/W
Approximate Weight	wt	-	0.06	g
Case Style	SMA			

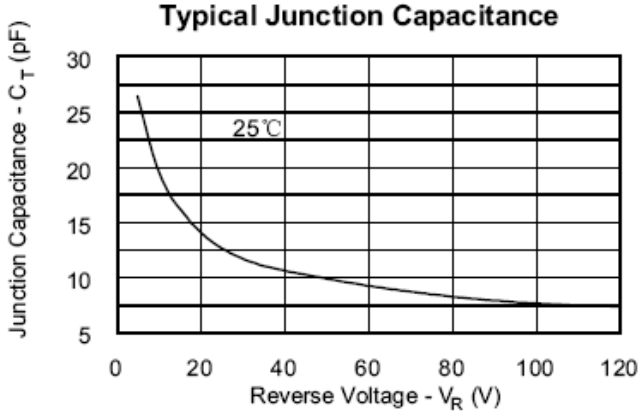
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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