



10MQ100N-S SCHOTTKY RECTIFIER

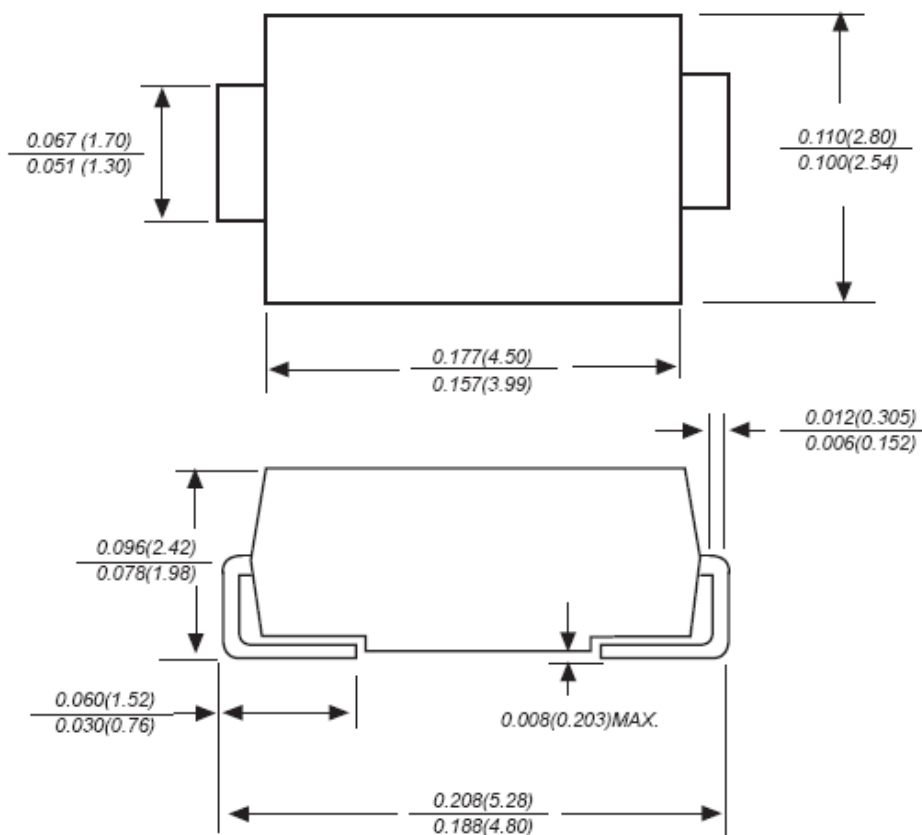
Applications:

- 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)



Technical Data
Data Sheet N1371, Rev. A

Green Products

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 @ $T_L=105^{\circ}C$, rectangular wave form On PC board 9mm ² island	1.5	A
DC Current	$I_{F(DC)}$	DC@ $T_L=120^{\circ}C$	2.1	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	10 ms, half Sine pulse	36	A



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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 1 A, Pulse, T _J = 25 °C	0.78	V
		@ 1.5 A, Pulse, T _J = 25 °C	0.85	
	V _{F2}	@ 1 A, Pulse, T _J = 125 °C	0.63	V
		@ 1.5 A, Pulse, T _J = 125 °C	0.68	
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

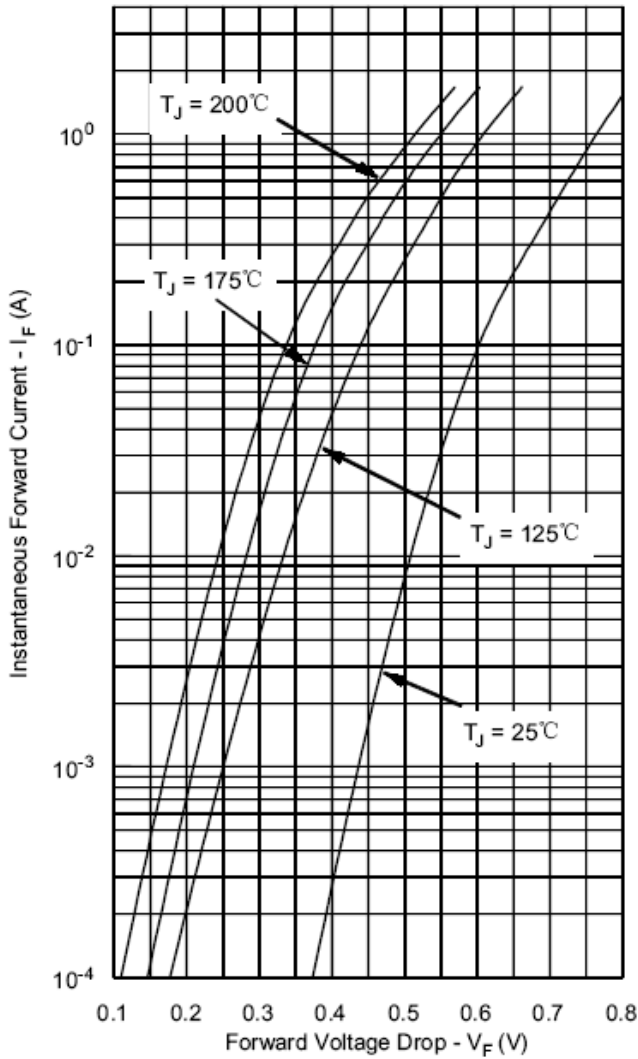
* Pulse Width < 300μs, Duty Cycle < 2%

Thermal-Mechanical Specifications:

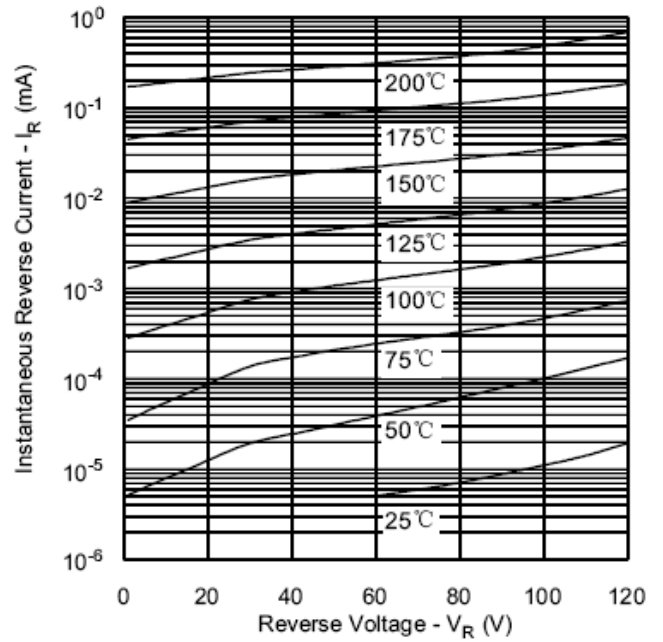
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T _J	-	-55 to +150	°C
Storage Temperature	T _{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Ambient	R _{θJA}	DC operation	80	°C/W
Approximate Weight	wt	-	0.06	g
Case Style	SMA			



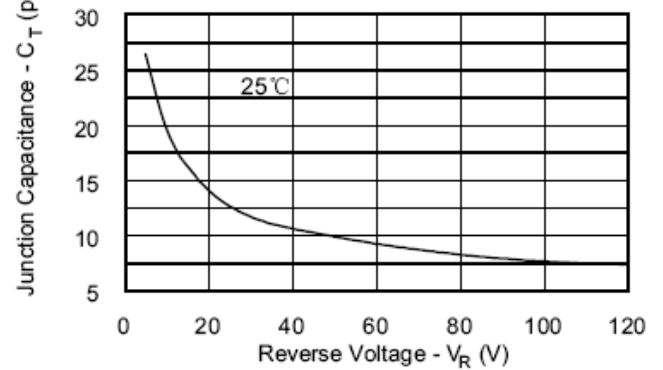
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance





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