Technical Data
Data Sheet N0231, Rev. -

Green Products

10MQ040N SCHOTTKY RECTIFIER

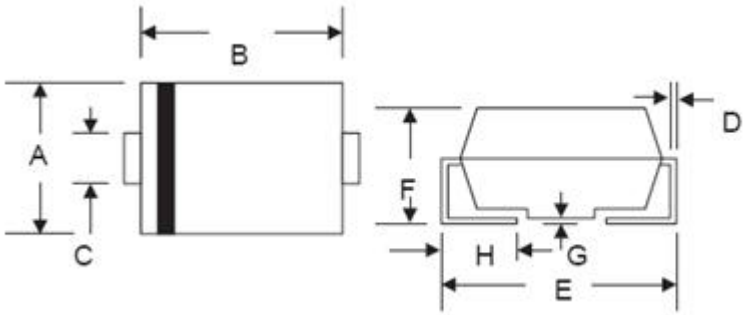
Applications:

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

Features:

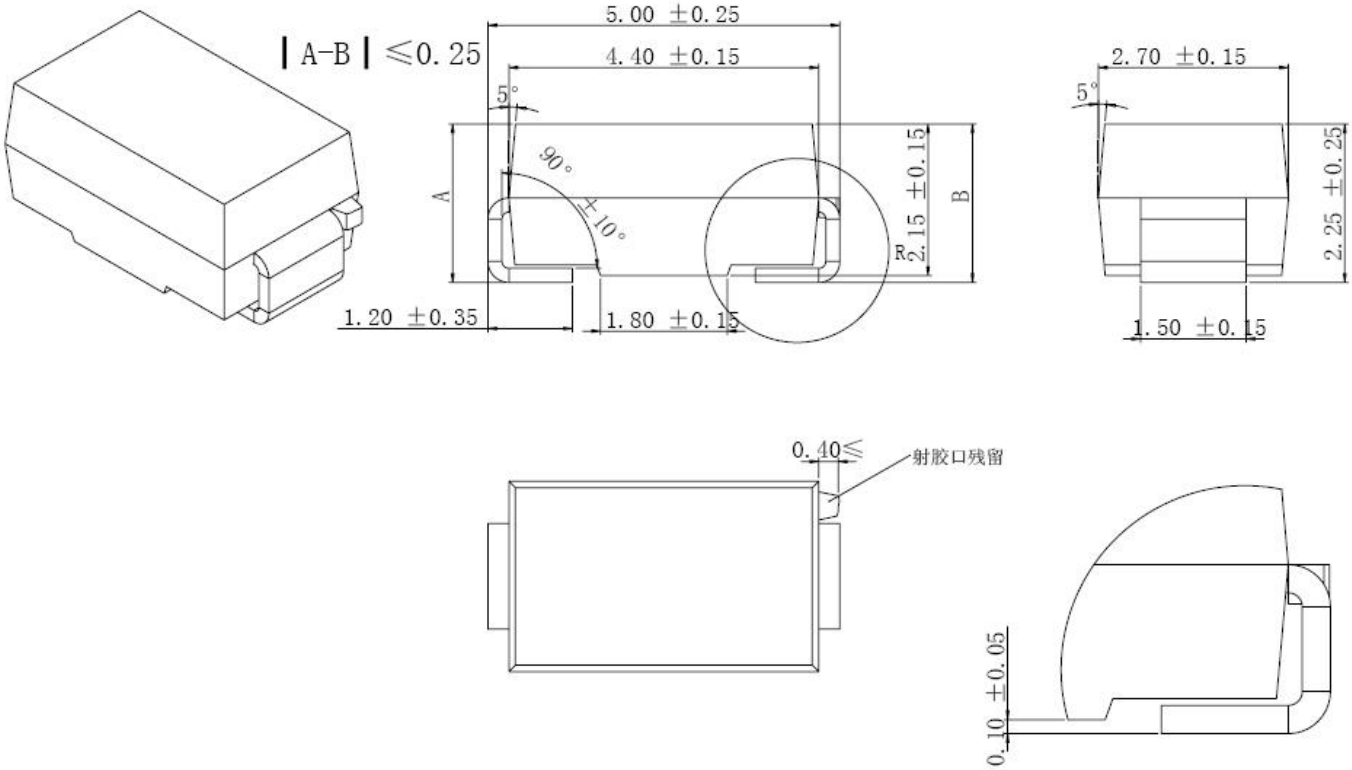
- Small foot print, surface moutable
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions (In mm / Inches):



SMA/DO-214AC				
Dim	Min	Max	Min	Max
A	2.50	2.90	0.098	0.114
B	4.00	4.60	0.157	0.181
C	1.40	1.60	0.055	0.063
D	0.152	0.305	0.006	0.012
E	4.80	5.28	0.189	0.208
F	2.00	2.44	0.079	0.096
G	0.051	0.203	0.002	0.008
H	0.76	1.52	0.030	0.060
	In mm		In inch	

OPTION 1



OPTION2 (JK)

SMA

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Marking Diagram:

Where XXXXX is YYWWL

S	= Device Type
A	= Package Type
1	= Forward Current (1A)
F	= Reverse Voltage (40V)
YY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information:

Device	Package	Shipping
10MQ040N	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 Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	40	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_L =105°C, rectangular wave form On PC board 9mm^2 island	1.0	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	36	A

Electrical Characteristics:

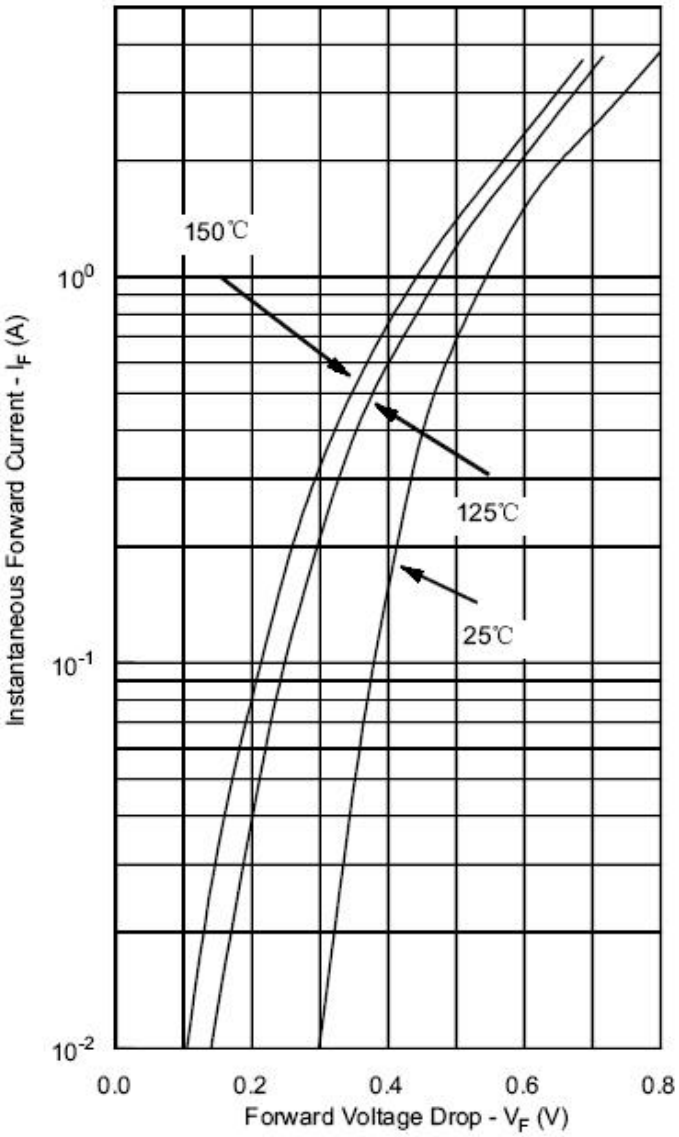
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 1 A, Pulse, T_J = 25 °C	0.52	0.54	V
	V_{F2}	@ 1 A, Pulse, T_J = 125 °C	0.47	0.49	V
Reverse Current *	I_{R1}	@V_R = Rated V_R, Pulse, T_J = 25 °C	0.003	0.5	mA
	I_{R2}	@V_R = Rated V_R, Pulse, T_J = 125 °C	2	26	mA
Junction Capacitance	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	54	70	PF
Voltage Rate of Change	dv/dt	-	-	10,000	V/µs

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

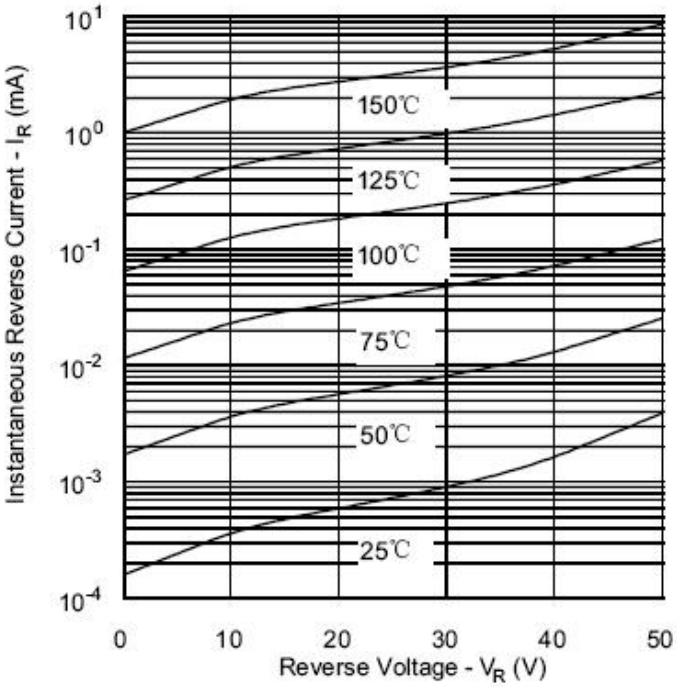
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +125	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	$R_{\theta JA}$	DC operation	80	°C/W
Approximate Weight	wt	-	0.11	g
Case Style	SMA			

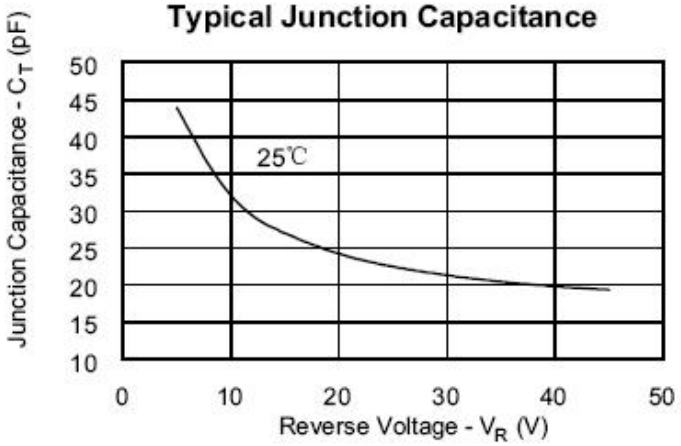
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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