

15MQ040N SCHOTTKY RECTIFIER

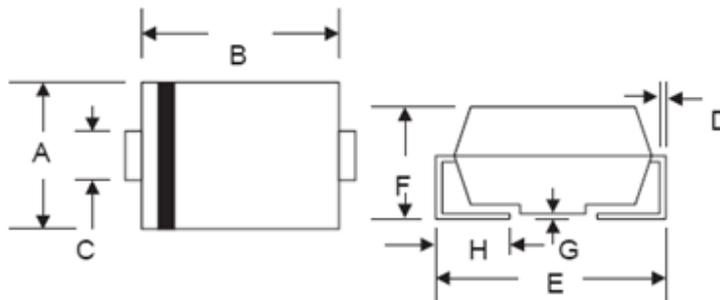
Applications:

- 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

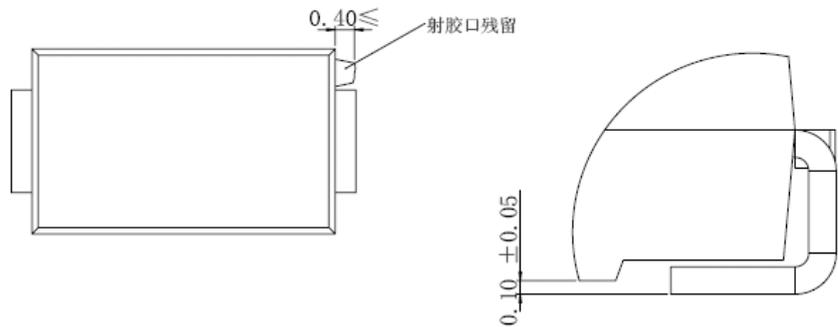
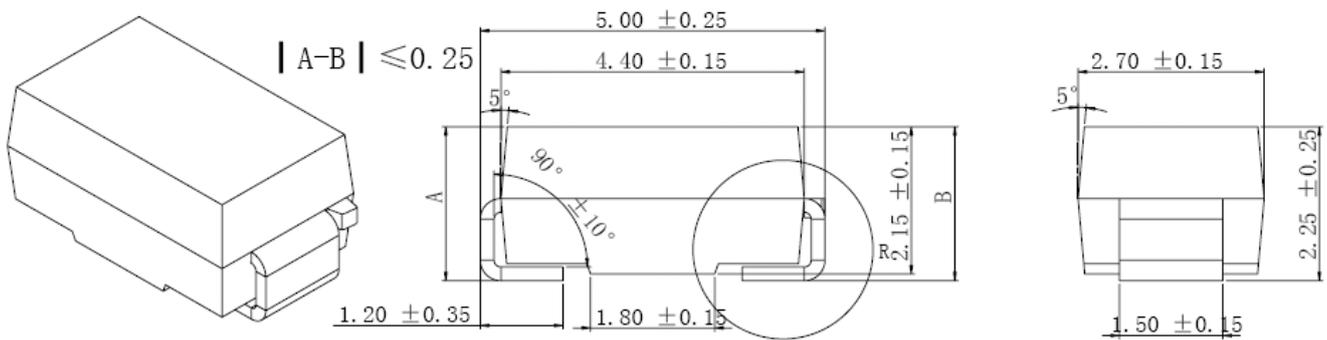
Mechanical Dimensions (In mm / Inches):



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

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •



OPTION2 (JK)

SMA

Marking Diagram:



Where XXXXX is YYWWL

- S = Device Type
- D = Package Type
- 15 = Forward Current (1.5A)
- F = Reverse Voltage (40V)
- YY = Year
- WW = Week
- L = Lot Number

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

Ordering Information:

Device	Package	Shipping
SD15F	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 Rectified Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_L=105^{\circ}C$, rectangular wave form On PC board 9mm ² island	2.1	A
Peak One Cycle Non-Repetitive Surge Current(per leg)	I_{FSM}	8.3 ms, half Sine pulse	60	A



Electrical Characteristics:

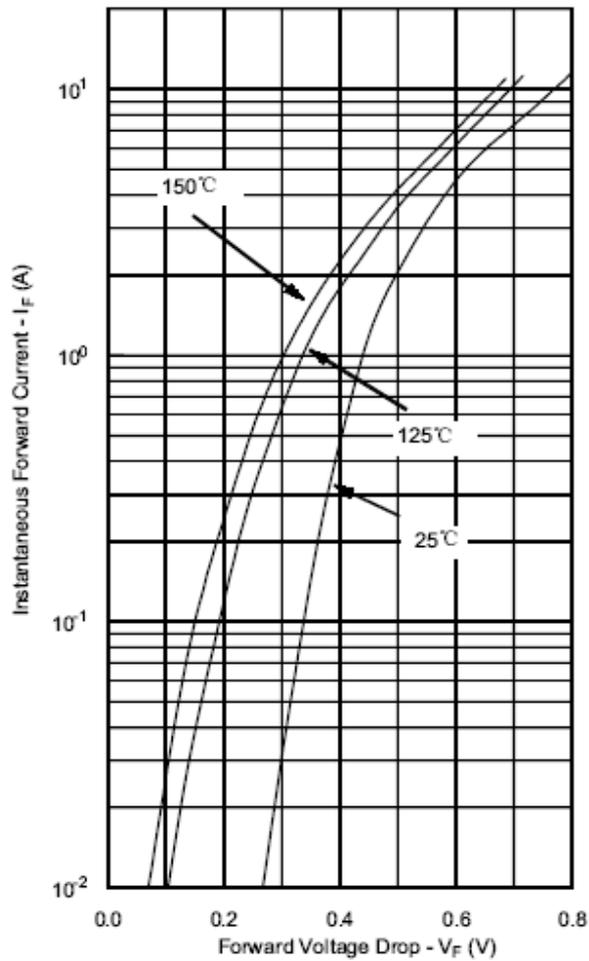
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 1 A, Pulse, T _J = 25 °C @ 2 A, Pulse, T _J = 25 °C	0.38 0.42	0.42 0.49	V
	V _{F2}	@ 1 A, Pulse, T _J = 100 °C @ 2 A, Pulse, T _J = 100 °C	- -	0.34 0.43	V
Reverse Current *	I _{R1}	@V _R = Rated V _R , Pulse, T _J = 25 °C	0.03	1.0	mA
	I _{R2}	@V _R = Rated V _R , Pulse, T _J = 125 °C	-	20	mA
Junction Capacitance	C _T	@V _R = 10V, T _C = 25 °C f _{SIG} = 1MHz	95	134	PF
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%

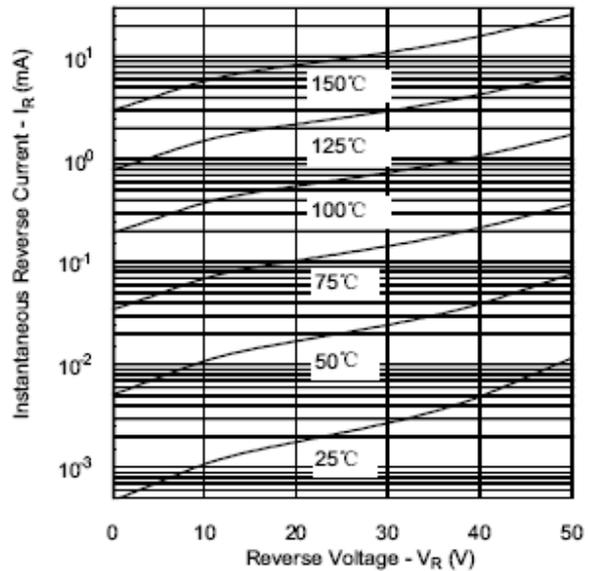
Thermal-Mechanical Specifications:

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	-	0.07	g
Case Style	SMA			

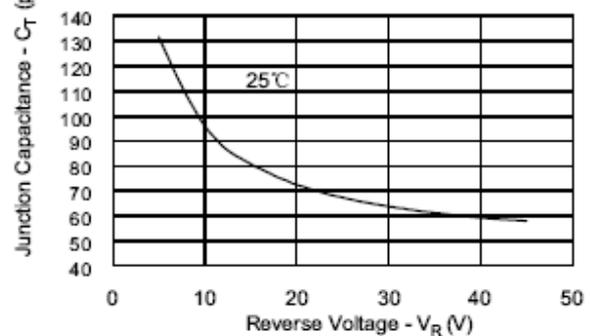
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance





15MQ040N

**Technical Data
Data Sheet N0021, Rev. A**

Green Products

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