

15MQ040N SCHOTTKY RECTIFIER

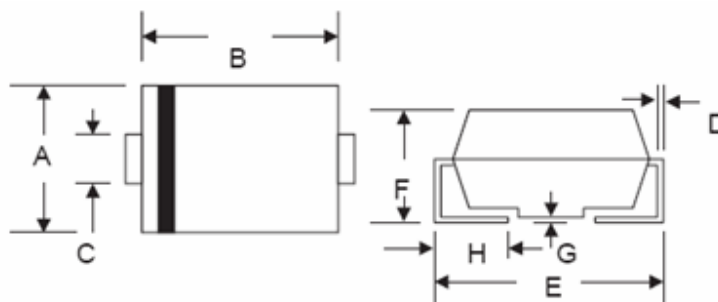
Applications:

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

Features:

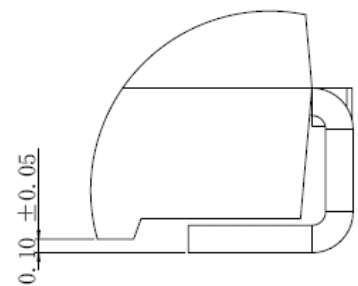
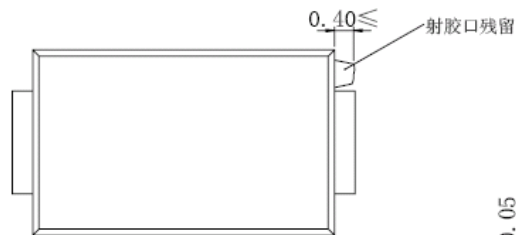
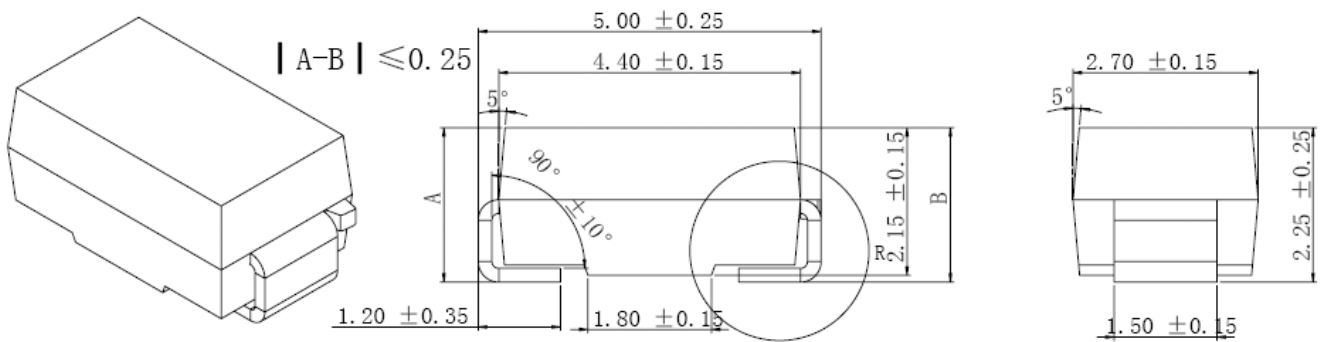
- Small foot print, surface moutable
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

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

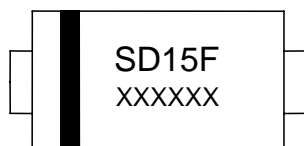


OPTION2 (JK)

SMA

Technical Data
Data Sheet N0021, Rev. A
Marking Diagram:

Green Products



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 Inverse Voltage	V_{RWM}	-	40	V
Average 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

Technical Data
Data Sheet N0021, Rev. A
Green Products
Electrical Characteristics:

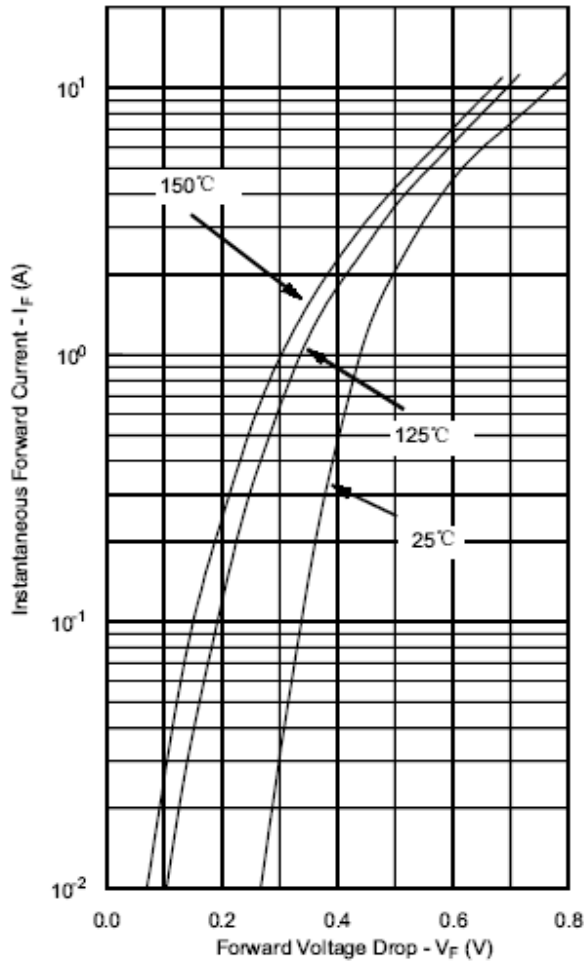
Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 1 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.42	V
		@ 2 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.49	
	V_{F2}	@ 1 A, Pulse, $T_J = 100\text{ }^\circ\text{C}$	0.34	V
		@ 2 A, Pulse, $T_J = 100\text{ }^\circ\text{C}$	0.43	
Reverse Current *	I_{R1}	@ $V_R = \text{Rated } V_R$, Pulse, $T_J = 25\text{ }^\circ\text{C}$	1.0	mA
	I_{R2}	@ $V_R = \text{Rated } V_R$, Pulse, $T_J = 125\text{ }^\circ\text{C}$	20	mA
Junction Capacitance	C_T	@ $V_R = 10\text{V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	134	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 < 300 μs , Duty Cycle < 2%

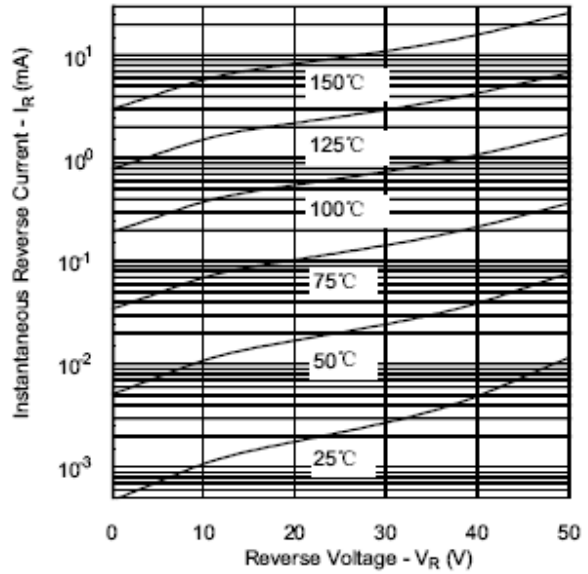
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Ambient	$R_{\theta JA}$	DC operation	80	$^\circ\text{C/W}$
Approximate Weight	wt	-	0.07	g
Case Style	SMA			

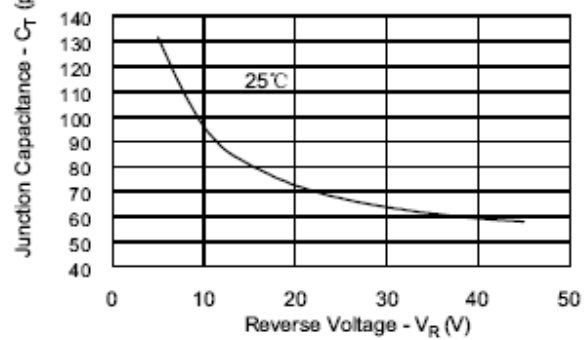
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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