

SK220A SCHOTTKY RECTIFIER

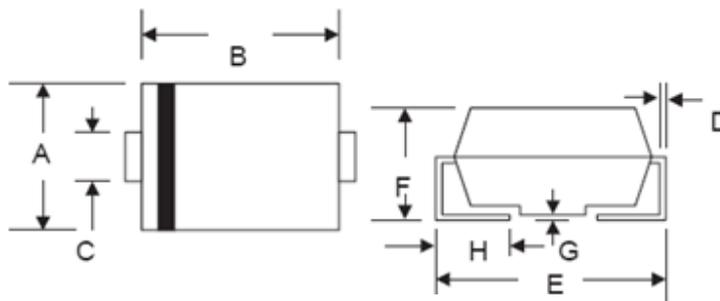
Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Features:

- Small foot print, surface mountable
- Very low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Green products in compliance the ROHS directive
- Pure tin plated, solderable per MIL-STD-750, Method 2026
- This is a Halogen Free device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

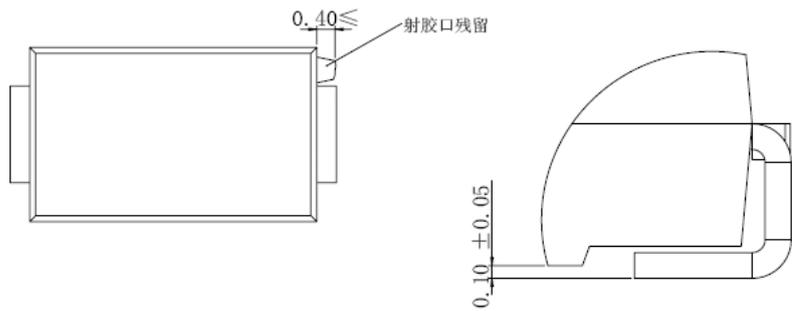
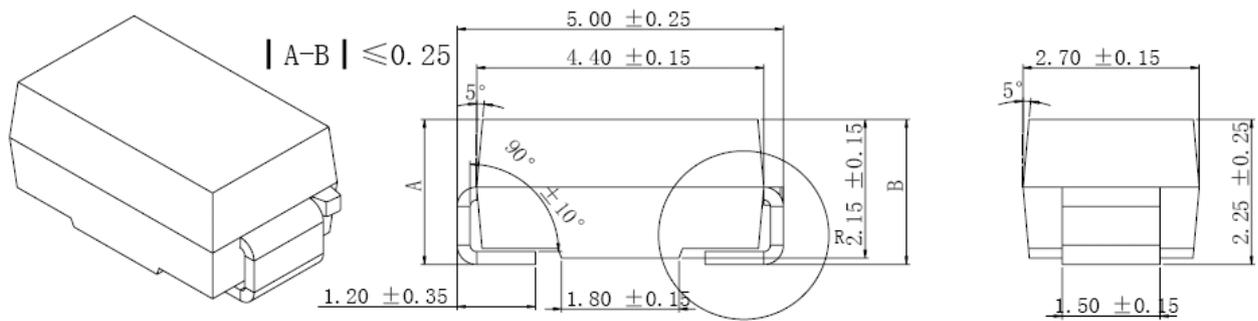
Mechanical Dimensions (In mm / Inches)



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 •



OPTION 2(JK)

SMA

Marking Diagram:


Where XXXXX is YYWWL

SK	= Device Type
2	= Forward Current (2A)
20	= Reverse Voltage (200V)
A	= Package type
YY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information:

Device	Package	Shipping
SK220A	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	-	200	V
Average Rectified Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_L=105^\circ\text{C}$ rectangular wave form(L=0.375")	2.0	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	50	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 2A, Pulse, $T_J = 25^\circ\text{C}$	0.89	0.9	V
Reverse Current*	I_{R1}	@ $V_R = \text{rated VR}$ $T_J = 25^\circ\text{C}$	0.05	0.5	mA
	I_{R2}	@ $V_R = \text{rated VR}$ $T_J = 100^\circ\text{C}$	-	20.0	mA
Typical Junction Capacitance	C_j	@ $V_R = 5.0\text{ V}$, $T_c = 25^\circ\text{C}$ $f_{\text{SIG}} = 1\text{MHz}$	150	170	PF

* 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	$^\circ\text{C}$
Typical Thermal Resistance Junction to Lead	$R_{\theta\text{JL}}$	DC operation	23	$^\circ\text{C/W}$
Typical Thermal Resistance, Case to Heat Sink	$R_{\theta\text{JA}}$	DC operation	88	$^\circ\text{C/W}$
Approximate Weight	wt	-	0.11	g
Case Style	SMA			

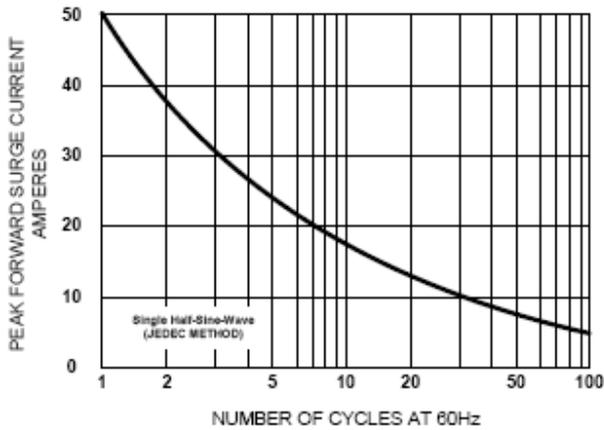


Figure 1. Maximum Non-repetitive Surge Current

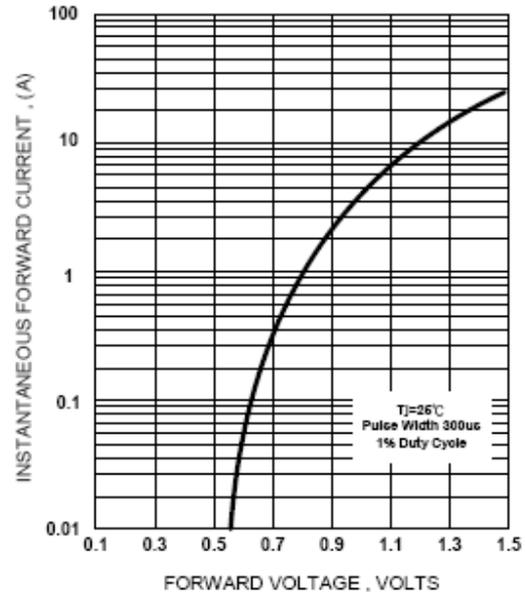


Figure 3. Typical Forward Characteristics

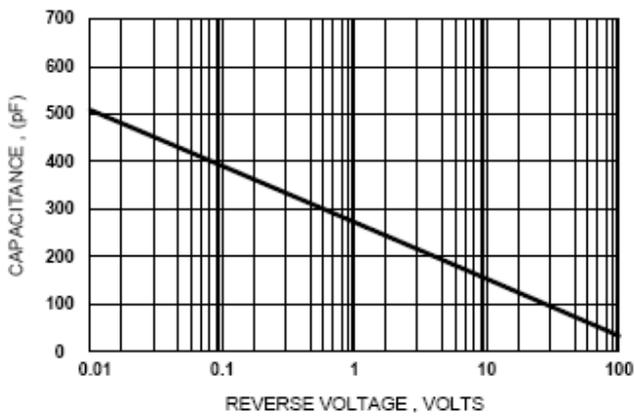


Figure 2. Typical Junction Capacitance

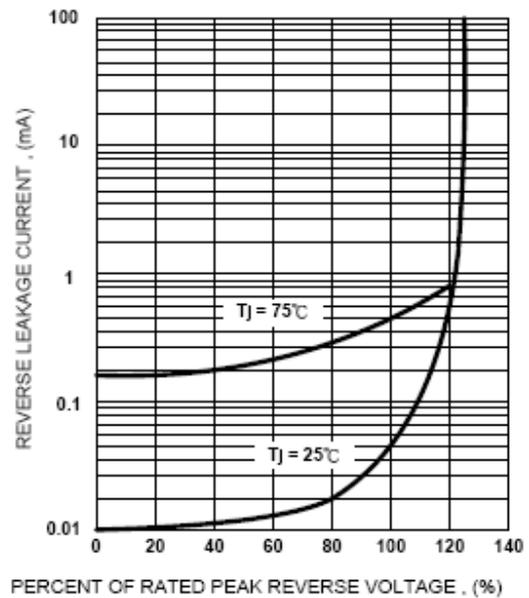


Figure 4. Typical Reverse Characteristics



SK220A

Technical Data
Data Sheet N0942, Rev. A

Green Products

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