SK12
THRU
SK110

Technical Data
Data Sheet N0930, Rev. B

SK12 THRU SK110 SCHOTTKY RECTIFIER

SMB

Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inventers, Free Wheeling, and Polarity Protection Applications
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Mechanical Data

- Case: Low Profile Molded plastic
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band or cathode Notch
- Mounting Position: Any
- Weight: 0.09grams(approx)

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	SK12	SK13	SK14	SK15	SK16	SK18	SK19	SK110	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	80	90	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	64	71	V
Average Rectified Output Current @T_L= 75°C	I_O	1.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30								A
Forward Voltage @ I_O= 1.0 A	V_F	0.55			0.70		0.85			V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.5 20								mA
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	75								K/W
Operating Temperature Range	T_J	-55 to +125								°C
Storage Temperature Range	T_{STG}	-55 to +150								°C

Note: 1. mounted on P.C. Board with 5.0mm^2 copper pad areas.

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Ratings and Characteristics Curves

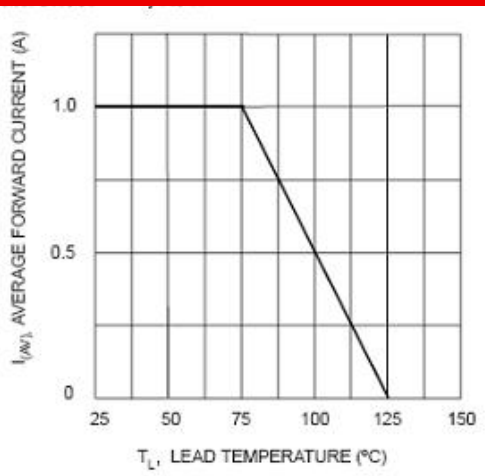

Fig. 1 Forward Current Derating Curve

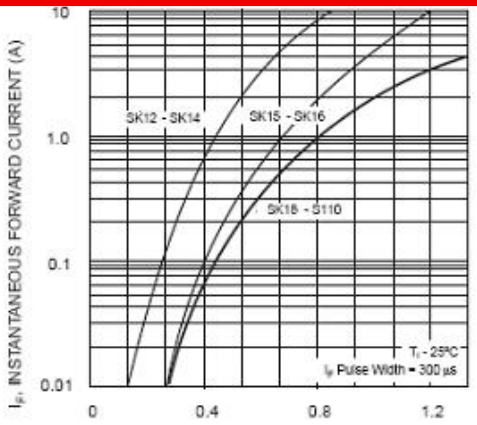

Fig. 2 Typ. Forward Characteristics

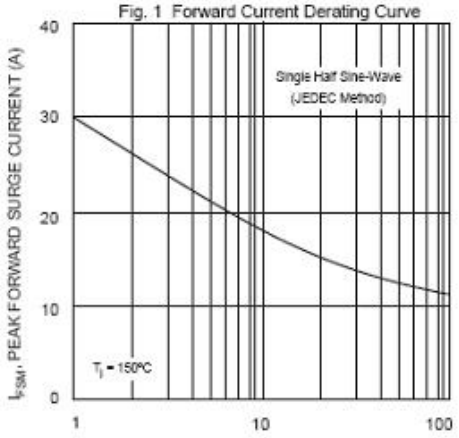

Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

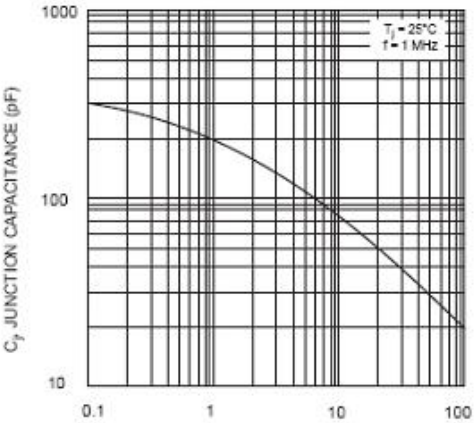

Fig. 4 Typical Junction Capacitance

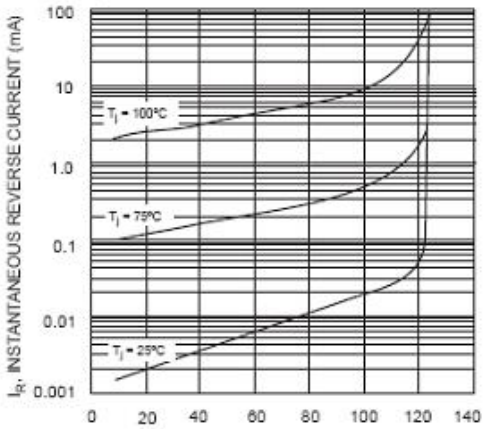

Fig. 5 Typical Reverse Characteristics

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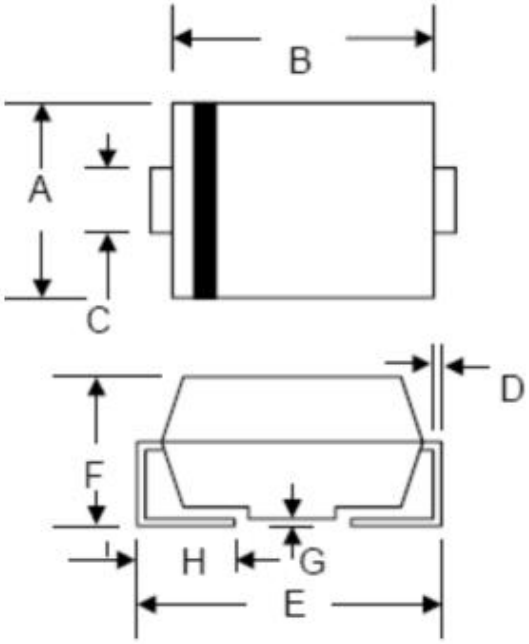
Mechanical Dimensions SMB



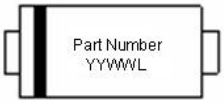
SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.94	0.130	0.155
B	4.06	4.70	0.160	0.185
C	1.80	2.20	0.071	0.087
D	0.152	0.305	0.006	0.012
E	4.80	5.59	0.189	0.220
F	2.10	2.60	0.083	0.102
G	0.051	0.203	0.002	0.008
H	0.76	1.52	0.030	0.060

Ordering Information

Device	Package	Shipping
SK12 THRU SK110	SMB (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

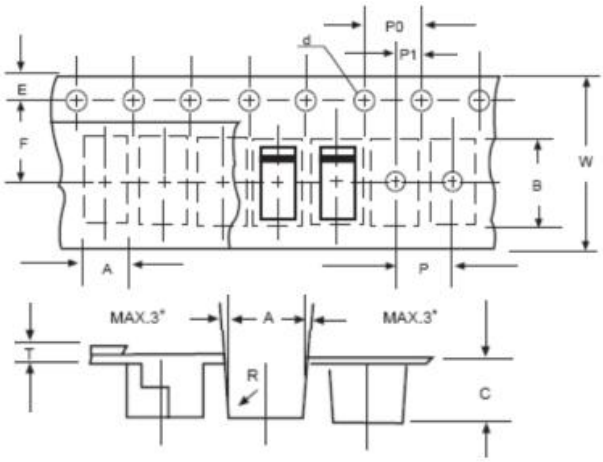
Marking Diagram



Where XXXXX is YYWWL

First row: Part Number (SK12, SK13, SK14, SK15, SK16, SK18, SK19, SK110)
Second row: YYWWL
YY is the manufacture year,
WW is the manufacture week code,
L is the wafer's Lot Number

Carrier Tape Specification SMB



SYMBOL	Millimeters	
	Min.	Max.
A	2.97	3.17
B	5.70	5.90
C	2.32	2.52
d	1.40	1.60
E	1.40	1.60
F	5.60	5.70
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
T	0.25	0.35
W	11.80	12.20

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