



Micro Commercial Components

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# SK12 THRU SK110

## 1 Amp Schottky Rectifier 20 to 100 Volts

### Features

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- Reverse Energy Tested
- High Current Capability
- Extremely Low Thermal Resistance
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

### Maximum Ratings

- Operating Temperature(Tj): -55°C to +125°C
- Storage Temperature(Tstg): -55°C to +150°C
- Maximum Thermal Resistance; 28°C/W Junction To Lead

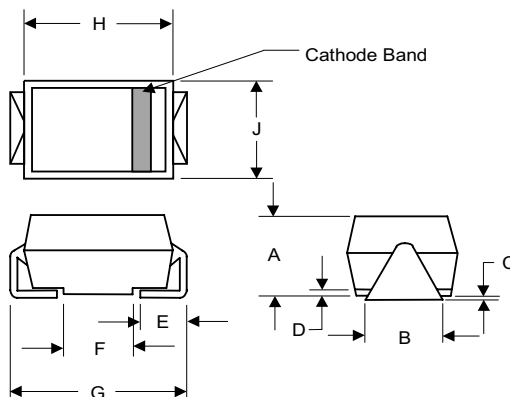
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SK12	SK12	20V	14V	20V
SK13	SK13	30V	21V	30V
SK14	SK14	40V	28V	40V
SK15	SK15	50V	35V	50V
SK16	SK16	60V	42V	60V
SK18	SK18	80V	56V	80V
SK110	SK110	100V	70V	100V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_J = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	SK12 .45V SK13 .55V SK14 .60V SK15-16 .72V SK18-110 .85V	$I_{FM} = 1.0A$ ; $T_a = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.5mA 20mA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	SK12 110pF SK13-SK110 30pF	Measured at 1.0MHz, $V_R=4.0V$

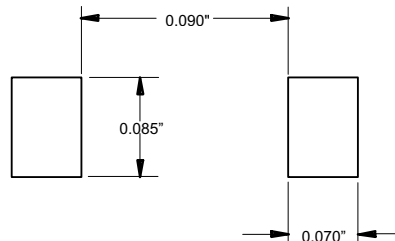
\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

### DO-214AA (HSMB) (Round Lead)



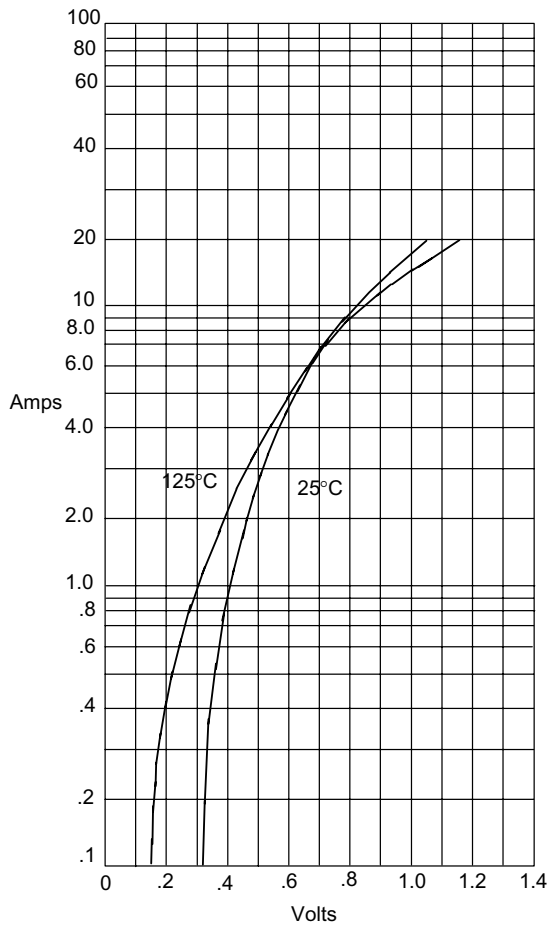
DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.078	.116	1.98	2.95	
B	.075	.089	1.90	2.25	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.035	.055	.90	1.40	
F	.065	.091	1.65	2.32	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.130	.155	3.30	3.94	

### SUGGESTED SOLDER PAD LAYOUT



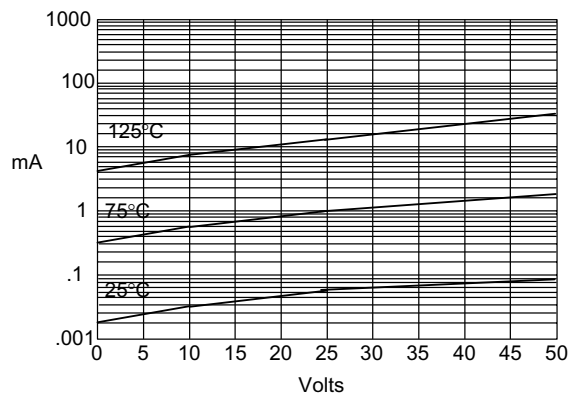
# SK12

Figure 1  
Typical Forward Characteristics



Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



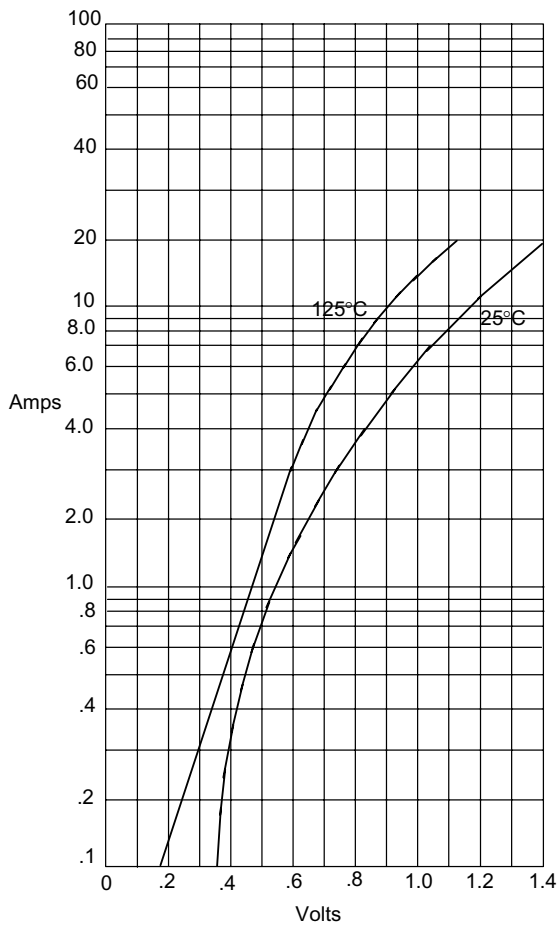
Typical Reverse Current - mA *versus*  
Reverse Voltage - Volts

# SK13 thru SK110



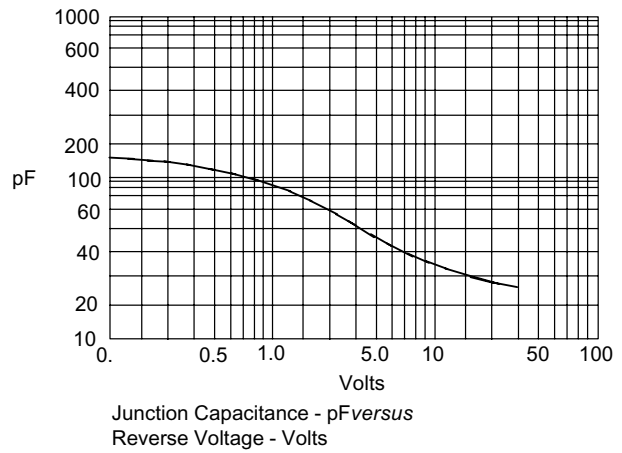
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Figure 1  
Typical Forward Characteristics



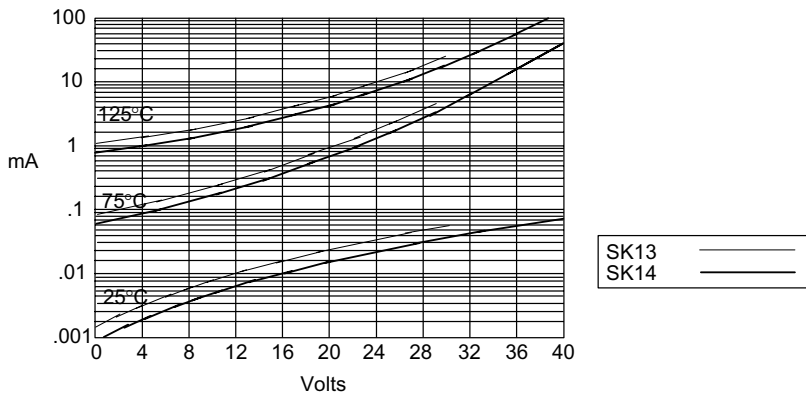
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 3  
Typical Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

Figure 2  
Typical Reverse Characteristics



Typical Reverse Current - mA versus  
Reverse Voltage - Volts



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