# NOT RECOMMENDED FOR NEW DESIGNS USE SK12-LTP~SK110-LTP SERIES





Micro Commercial Components

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## SK12 THRU SK110

### **Features**

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Low Forward Voltage
- Guard Ring Protection
- High Current Capability
- Low Thermal Resistance
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### **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	Device	Maximum	Maximum	Maximum
Catalog	Marking	Recurrent	RMS	DC
Number		Peak Reverse	Voltage	Blocking
		Voltage		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

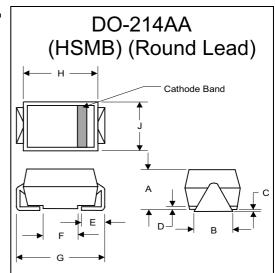
#### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward	$I_{F(AV)}$	1.0A	T <sub>J</sub> = 90°C
Current			
Peak Forward Surge	$I_{FSM}$	30A	8.3ms, half sine
Current			
Maximum			
Instantaneous			
Forward Voltage			
SK12	$V_{F}$	.45V	$I_{FM} = 1.0A;$
SK13		.55V	T <sub>a</sub> = 25°C*
SK14		.60V	· a =
SK15-16		.72V	
SK18-110		.85V	
Maximum DC Reverse	ı	0 Em 1	T - 0500
Current At Rated DC	I <sub>R</sub>	0.5mA	$T_A = 25^{\circ}C$
Blocking Voltage		20mA	T <sub>A</sub> = 100°C
Typical Junction			
Capacitance			
SK12	$C_{J}$	110pF	Measured at
SK13-SK110		30pF	1.0MHz, V <sub>R</sub> =4.0V

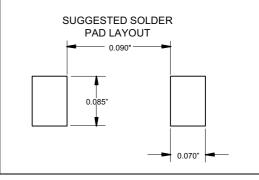
<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 2%

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

## 1 Amp Schottky Rectifier 20 to 100 Volts



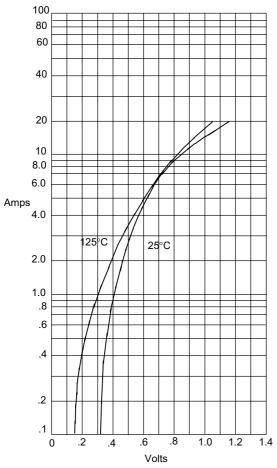
DIMENSIONS						
	INCHES		MM			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.078	.116	1.98	2.95		
В	.075	.089	1.90	2.25		
С	.002	.008	.05	.20		
D		.02		.51		
Е	.035	.055	.90	1.40		
F	.065	.091	1.65	2.32		
G	.205	.224	5.21	5.69		
Н	.160	.180	4.06	4.57		
J	.130	.155	3.30	3.94		



## **SK12**

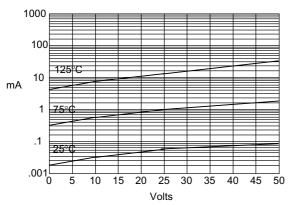


Figure 1 Typical Forward Characteristics



Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



Typical Reverse Current - mAversus Reverse Voltage - Volts

### SK13 thru SK110

·*M*·*C*·*C*·

Figure 1
Typical Forward Characteristics

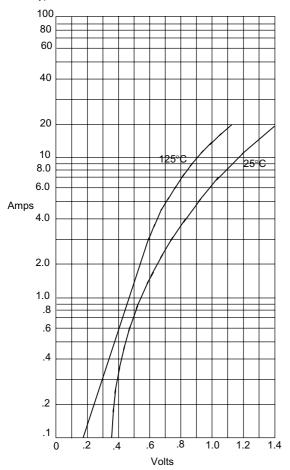
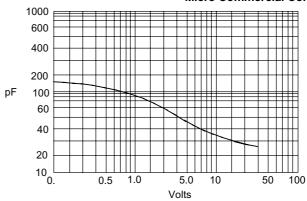


Figure 3
Typical Junction Capacitance

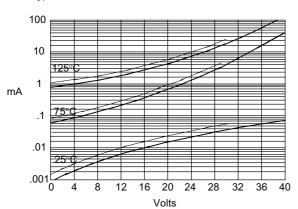
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Junction Capacitance - pF*versus* Reverse Voltage - Volts

Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



Typical Reverse Current - mAversus Reverse Voltage - Volts 

#### **Micro Commercial Components**

#### Ordering Information:

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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### Micro Commercial Components (MCC):

<u>SK16-TP SK14-TP SK15-TP SK110-TP SK13-TP SK12-TP SK18-TP SK12-TP (SMB5817) SK110-LTP SK13-TP (SMB5818) SK14-TP (SMB5819) SK15-TP (SMBSR105) SK16-TP (SMBSR106) SK18-TP (SMBSR108) SK14-LTP SK12-LTP SK13-LTP SK110-TP (SMBSR1010)</u>