### NOT RECOMMENDED FOR NEW DESIGNS





Micro Commercial Components

Micro Commercial Components

20736 Marilla Street Chatsworth

CA 91311

Phone: (818) 701-4933 Fax: (818) 701-4939 SK102 THRU SK1010

## **Features**

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- For Surface Mount Applications
- · High Current Capability With Low Forward Voltage
- Easy Pick And Place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Halogen free available upon request by adding suffix "-HF"

# 10 Amp Schottky Rectifier 20 to 100 Volts

(HSMC) (Round Lead)

Cathode Band

**DO-214AB** 

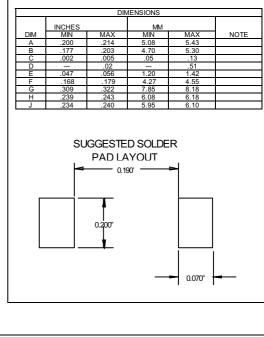
# **Maximum Ratings**

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance; 18°C/W Junction To Lead

MST		Maximum	Maximum	Maximum
Part	Device	Recurrent	RMS	DC
Number	Marking	Peak Reverse	Voltage	Blocking
		Voltage		Voltage
SK102	SK102	20V	14V	20V
SK103	SK103	30V	21V	30V
SK1035	SK1035	35V	24.5V	35V
SK104	SK104	40V	28V	40V
SK1045	SK1045	45V	31.5V	45V
SK105	SK105	50V	35V	50V
SK106	SK106	60V	42V	60V
SK108	SK108	80V	56V	80V
SK1010	SK1010	100V	70V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward	I <sub>F(AV)</sub>	10.0A	T <sub>L</sub> = 95°C
Current			
Peak Forward Surge	I <sub>FSM</sub>	250A	8.3ms, half sine
Current			
Maximum			
Instantaneous			
Forward Voltage			
SK102-1045	$V_{F}$	.65V	$I_{FM} = 10.0A;$
SK105-1010		.85V	$T_J = 25^{\circ}C^*$
Maximum DC			
Reverse Current At	$I_R$	1mA	T <sub>J</sub> = 25°C
Rated DC Blocking		20mA	T <sub>J</sub> = 100°C
Voltage			
Typical Junction	CJ	500pF	Measured at
Capacitance			1.0MHz, V <sub>R</sub> =4.0V



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

# SK102 thru SK1010

 $\cdot M \cdot C \cdot C \cdot$ 

**Micro Commercial Components** 



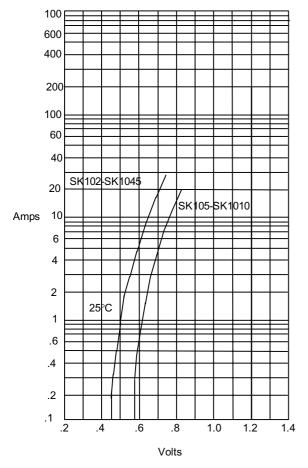
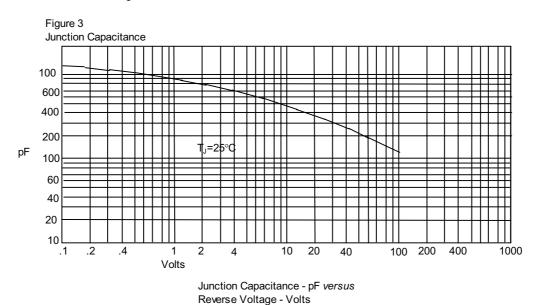


Figure 2 Forward Derating Curve 12 10 8.0 6.0 Amps 4.0 2.0 Single Phase, Half Wa 60Hz Resistive or 0 <del>|</del> 100 120 140 160 180

Average Forward Rectified Current - Amperes versus Lead Temperature - C

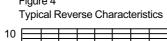
Instantaneous Forward Current - Amperes *versus* Instantaneous Forward Voltage - Volts

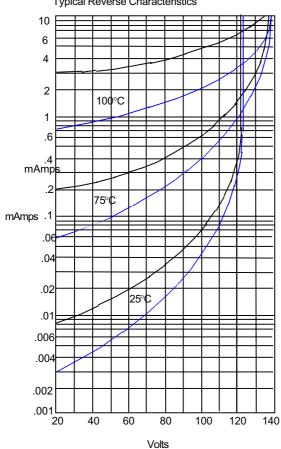


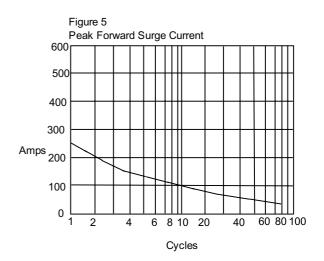
# SK102 thru SK1010



**Micro Commercial Components** 







Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

SK102-SK1045 SK105-SK1010

Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts



## **Ordering Information:**

Device	Packing	
Part Number-TP	Tape&Reel: 1.5Kpcs/Reel	

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

#### \*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

#### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

#### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.