



Micro Commercial Components



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 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"

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 Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking 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 |

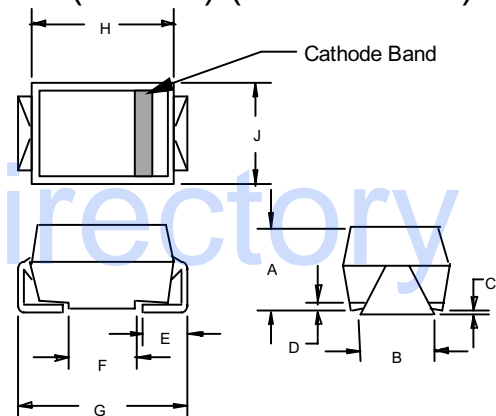
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--------------|---|
| Average Forward Current | $I_{F(AV)}$ | 10.0A | $T_L = 95^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 250A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | .65V .85V | $I_{FM} = 10.0A;$ $T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 1mA 20mA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 500pF | Measured at 1.0MHz, $V_R=4.0V$ |

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

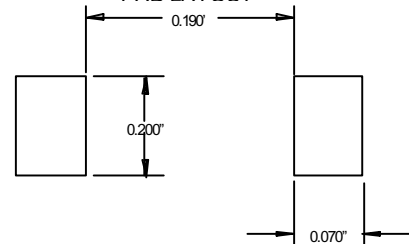
10 Amp Schottky Rectifier 20 to 100 Volts

DO-214AB (HSMC) (Round Lead)



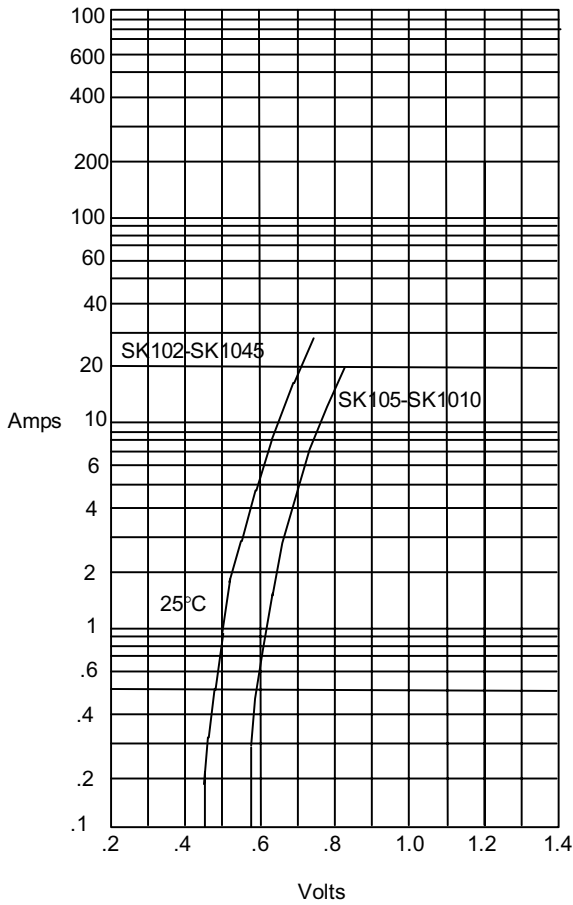
| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .200 | .214 | 5.08 | 5.43 | |
| B | .177 | .203 | 4.70 | 5.30 | |
| C | .002 | .005 | .05 | .13 | |
| D | — | .02 | — | .51 | |
| E | .047 | .056 | 1.20 | 1.42 | |
| F | .168 | .179 | 4.27 | 4.55 | |
| G | .309 | .322 | 7.85 | 8.18 | |
| H | .239 | .243 | 6.08 | 6.18 | |
| J | .234 | .240 | 5.95 | 6.10 | |

SUGGESTED SOLDER PAD LAYOUT

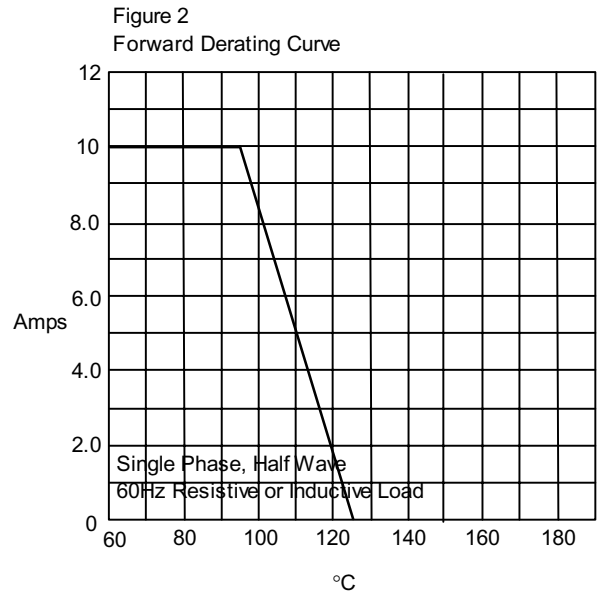


SK102 thru SK1010

Figure 1
Typical Forward Characteristics

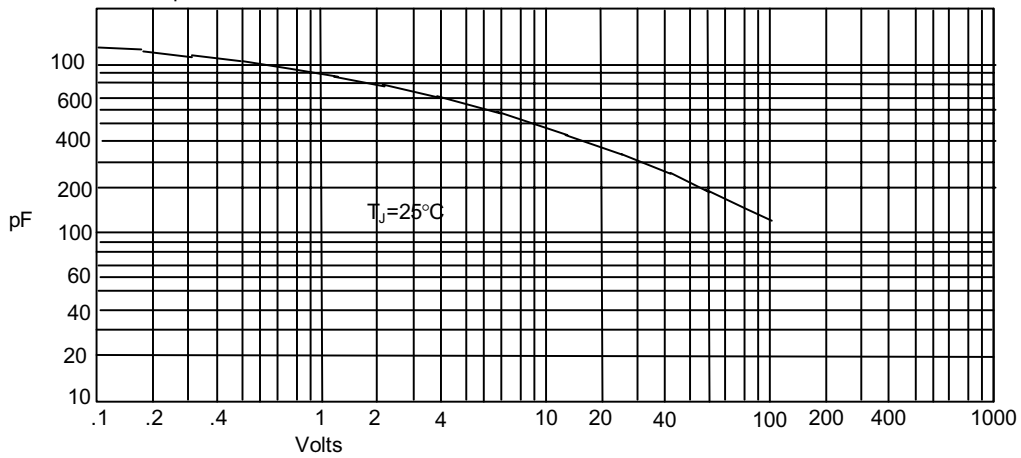


Instantaneous Forward Current - Amperes *versus* Instantaneous Forward Voltage - Volts



Average Forward Rectified Current - Amperes *versus* Lead Temperature - C

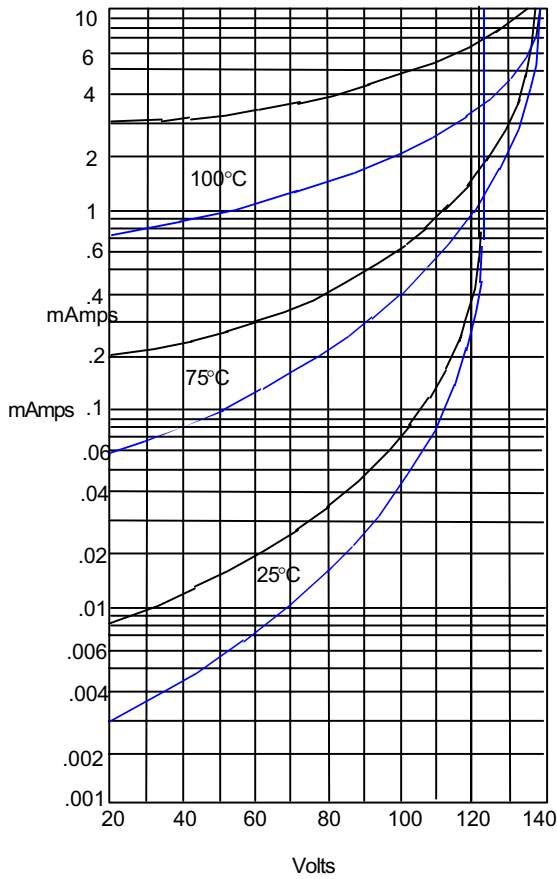
Figure 3
Junction Capacitance



Junction Capacitance - pF *versus* Reverse Voltage - Volts

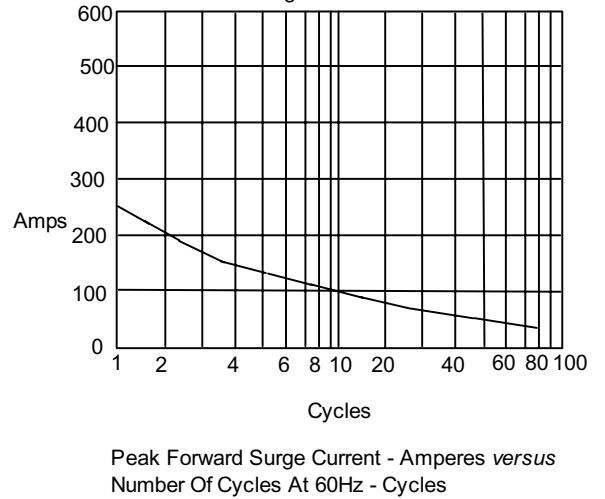
SK102 thru SK1010

Figure 4
Typical Reverse Characteristics



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

Figure 5
Peak Forward Surge Current



SK102-SK1045 ———
SK105-SK1010 - - - -



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Ordering Information :

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

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

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