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# SK82L THRU SK810L

## Features

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

## Maximum Ratings

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

| Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| SK82L          | SK82           | 20V                                    | 14V                 | 20V                         |
| SK83L          | SK83           | 30V                                    | 21V                 | 30V                         |
| SK835L         | SK835          | 35V                                    | 24.5V               | 35V                         |
| SK84L          | SK84           | 40V                                    | 28V                 | 40V                         |
| SK845L         | SK845          | 45V                                    | 31.5V               | 45V                         |
| SK86L          | SK86           | 60V                                    | 42V                 | 60V                         |
| SK88L          | SK88           | 80V                                    | 56V                 | 80V                         |
| SK810L         | SK810          | 100V                                   | 70V                 | 100V                        |

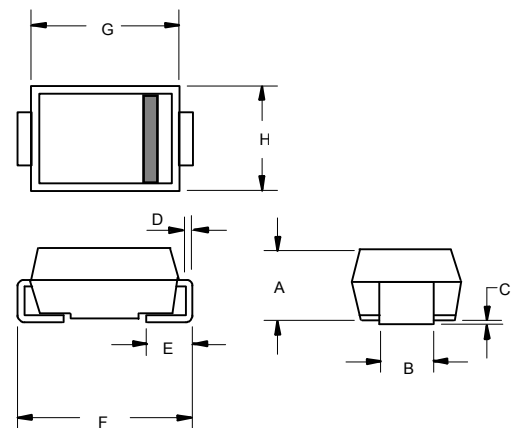
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                                  |             |              |                                                   |
|------------------------------------------------------------------|-------------|--------------|---------------------------------------------------|
| Average Forward Current                                          | $I_{F(AV)}$ | 8.0A         | $T_J=95^\circ\text{C}$                            |
| Peak Forward Surge Current                                       | $I_{FSM}$   | 200A         | 8.3ms half sine                                   |
| Maximum Instantaneous Forward Voltage<br>SK82L-86L<br>SK88L-810L | $V_F$       | .65V<br>.80V | $I_{FM}=8.0A$<br>$T_A=25^\circ\text{C}$           |
| Maximum DC Reverse Current<br>At Rated DC Blocking Voltage       | $I_R$       | 1mA<br>20mA  | $T_J=25^\circ\text{C}$<br>$T_J=100^\circ\text{C}$ |
| Typical Junction Capacitance                                     | $C_J$       | 400pF        | Measured at<br>1.0MHz,<br>$V_R=4.0V$              |

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

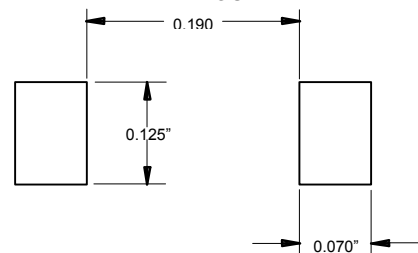
## 8.0 Amp Schottky Rectifier 20 to 100 Volts

### DO-214AB (SMC) (LEAD FRAME)



| DIM | INCHES |      | MM    |       | NOTE |
|-----|--------|------|-------|-------|------|
|     | MIN    | MAX  | MIN   | MAX   |      |
| A   | .079   | .103 | 2.00  | 2.62  |      |
| B   | .108   | .128 | 2.75  | 3.25  |      |
| C   | .002   | .008 | 0.051 | 0.203 |      |
| D   | .006   | .012 | 0.152 | 0.305 |      |
| E   | .030   | .050 | 0.76  | 1.27  |      |
| F   | .305   | .320 | 7.75  | 8.13  |      |
| G   | .260   | .280 | 6.60  | 7.11  |      |
| H   | .220   | .245 | 5.59  | 6.22  |      |

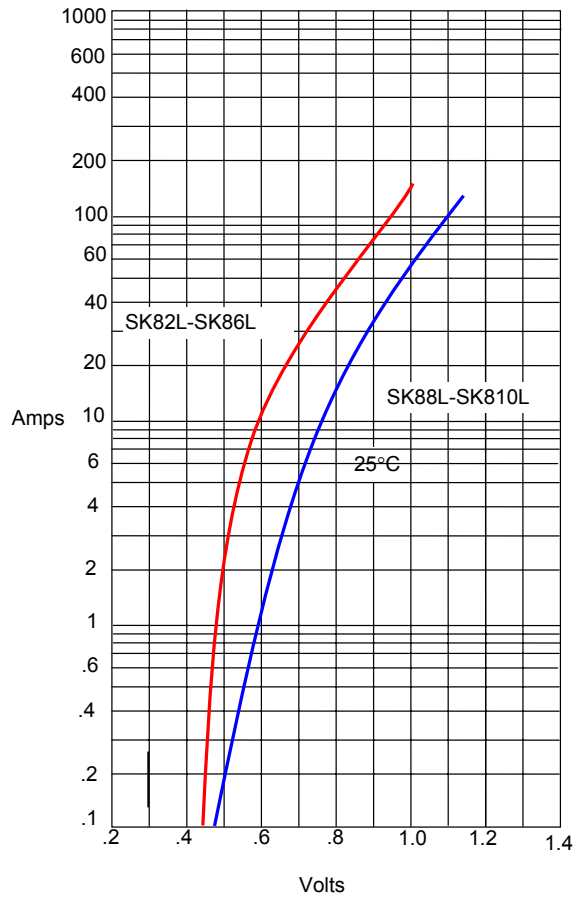
### SUGGESTED SOLDER PAD LAYOUT





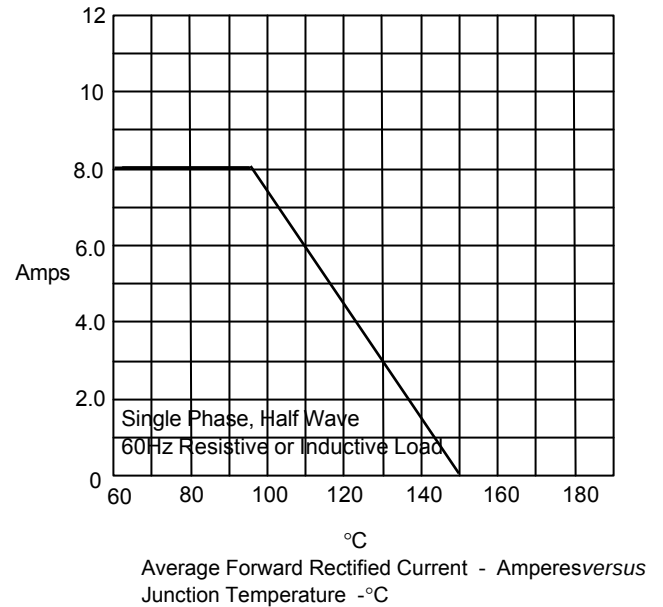
# SK82L thru SK810L

Figure 1  
Typical Forward Characteristics



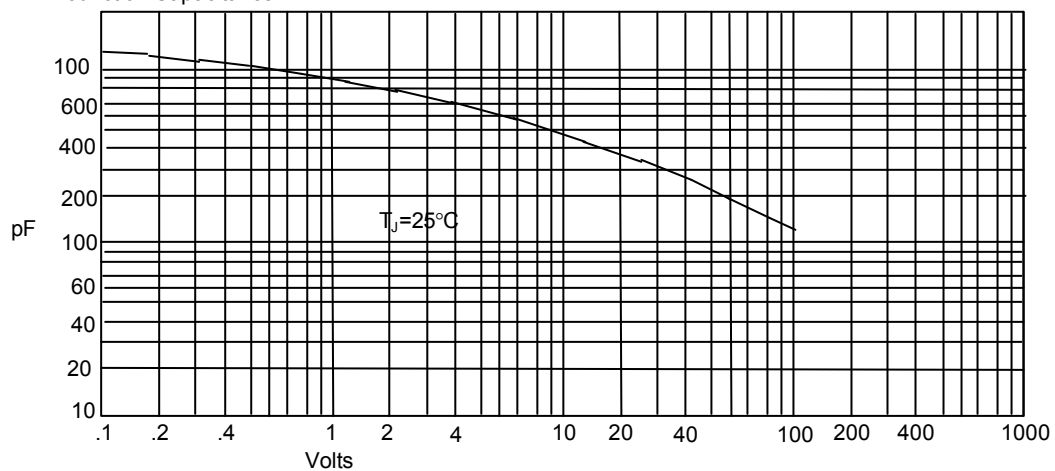
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*  
Junction Temperature - °C

Figure 3  
Junction Capacitance

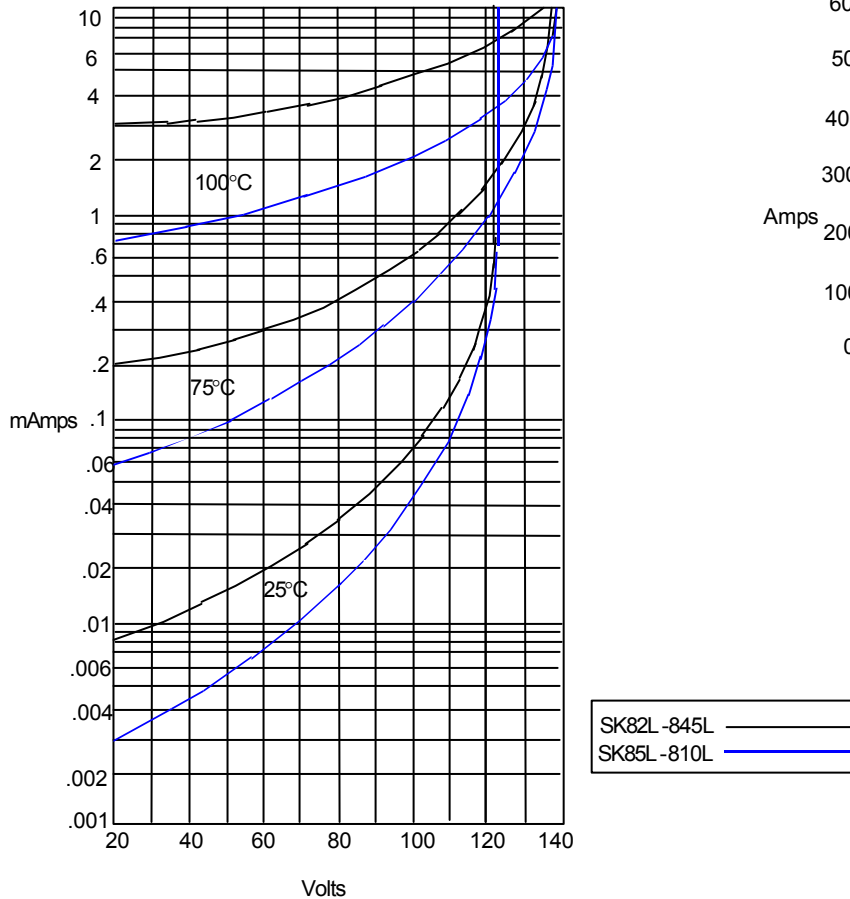


Junction Capacitance - pF *versus*  
Reverse Voltage - Volts



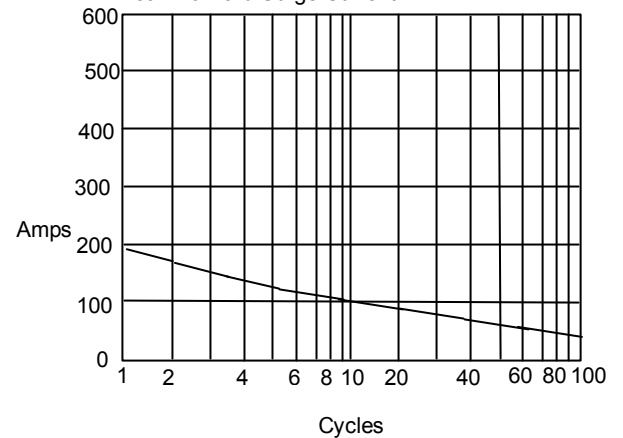
## SK82L thru SK810L

Figure 4  
Typical Reverse Characteristics



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

Figure 5  
Peak Forward Surge Current



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