

**Pb Free Plating Product**

## SK152 thru SK1510



15.0 Ampere Surface Mount Round Lead Schottky Barrier Rectifier Diodes

### FEATURE

- ◆ Standard SR matured technology with high reliability
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** HSMC/SMC-W Package  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode band  
**Mounting Position:** Any

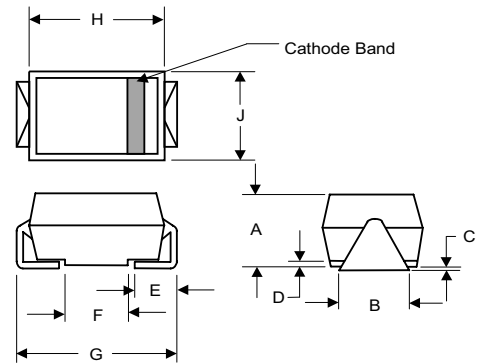
**Weight:** 0.22 gram approximately

### APPLICATION

- ◆ LED SMPS/Industrial power supply
- ◆ HID ballast stabilizer
- ◆ Telecommunication SMPS/LED street lamp

### OUTLINE

Unit:inch(millimeter)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.200	0.214	5.08	5.43	
B	0.177	0.203	4.70	5.30	
C	0.002	0.005	0.05	0.13	
D	—	0.02	—	0.51	
E	0.047	0.056	1.20	1.42	
F	0.168	0.179	4.27	4.55	
G	0.309	0.322	7.85	8.18	
H	0.239	0.243	6.08	6.18	
J	0.234	0.240	5.95	6.10	

**HSMC/SMC-W**

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	SK 152	SK 153	SK 154	SK 155	SK 156	SK 159	SK 1510	UNIT	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	90	100	V	
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	63	70	V	
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	90	100	V	
Maximum average forward rectified current	I <sub>F(AV)</sub>	15							A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	275							A	
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 15 A	V <sub>F</sub>	0.55			0.70		0.92		V	
Maximum reverse current @ Rated V <sub>R</sub>	I <sub>R</sub>	0.5					0.1			mA
		15			10		-			
		-					5.0			
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000							V/μs	
Typical thermal resistance	R <sub>θJC</sub>	17							°C/W	
Operating junction temperature range	T <sub>J</sub>	- 55 to +125				- 55 to +150				°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150							°C	

Note 1: Pulse test with PW=300μs, 1% duty cycle

## RATINGS AND CHARACTERISTICS CURVES

( $T_A=25^\circ\text{C}$  unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

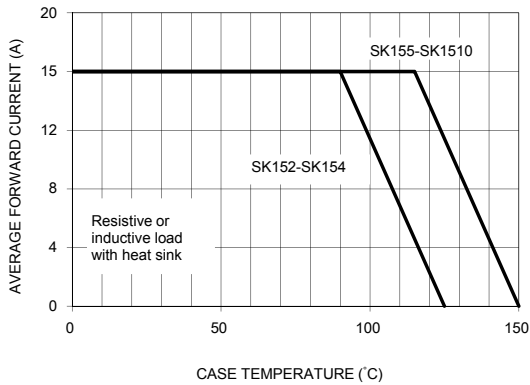


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

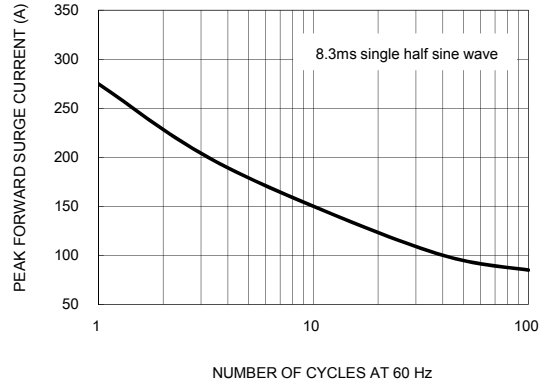


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

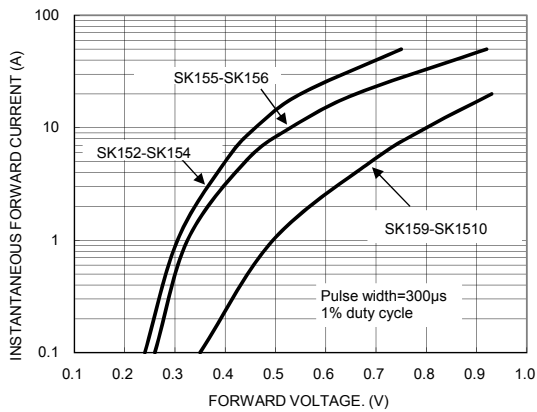


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

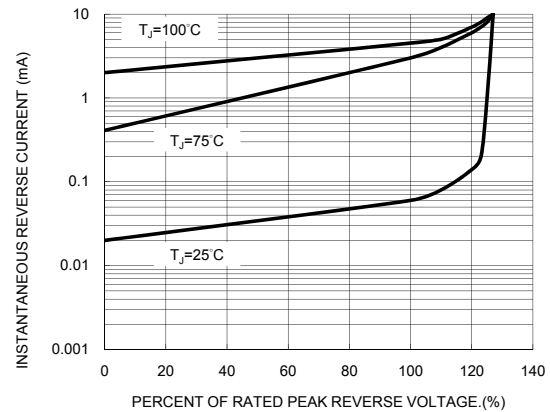


FIG. 5 TYPICAL JUNCTION CAPACITANCE

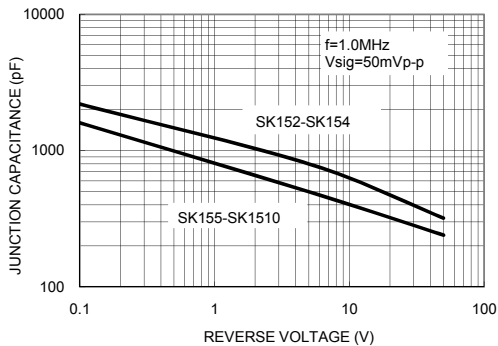


FIG. 6 TYPICAL TRANSIENT THERMAL CHARACTERISTICS

