

Pb Free Plating Product

SK152 thru SK1510



15.0 Ampere Surface Mount Round Lead Schottky Barrier Rectifier Diodes

FEATURE

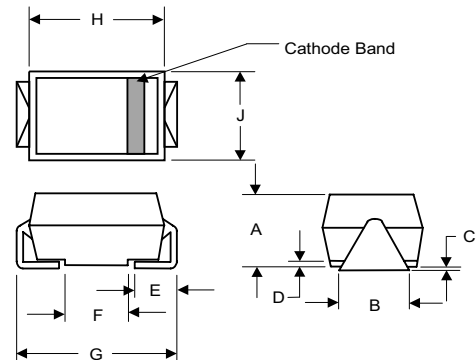
- ◆ Standard SR matured technology with high reliability
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ 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)



DIMENSIONS					
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_A=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 _{RRM}	20	30	40	50	60	90	100	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	63	70	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	90	100	V
Maximum average forward rectified current	I _{F(AV)}	15							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	275							A
Maximum instantaneous forward voltage (Note 1) I _F = 15 A	V _F	0.55			0.70		0.92		V
Maximum reverse current @ Rated V _R T _J =25°C T _J =100°C T _J =125°C	I _R	0.5					0.1		mA
		15			10		-		
		-					5.0		
Voltage rate of change (Rated V _R)	dV/dt	10000							V/μs
Typical thermal resistance	R _{θJC}	17							°C/W
Operating junction temperature range	T _J	- 55 to +125			- 55 to +150				°C
Storage temperature range	T _{STG}	- 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

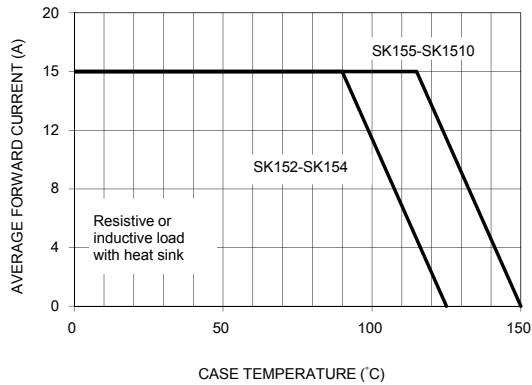


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

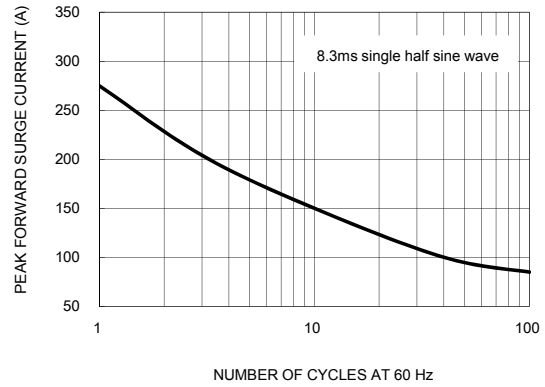


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

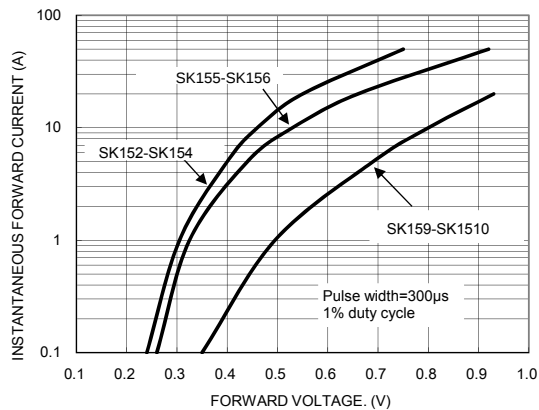


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

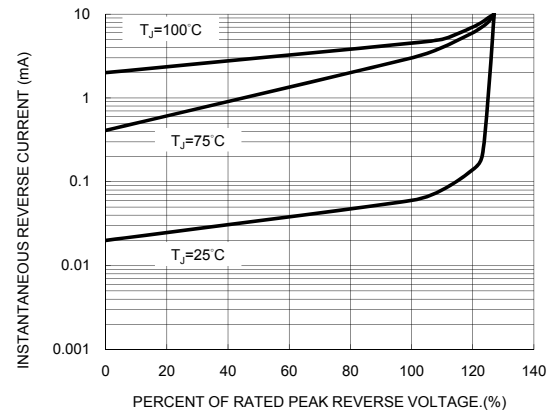


FIG. 5 TYPICAL JUNCTION CAPACITANCE

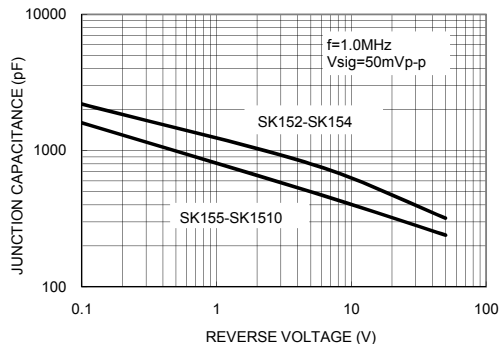


FIG. 6 TYPICAL TRANSIENT THERMAL CHARACTERISTICS

