

Pb Free Plating Product

SK1035 thru SK1020



10.0 Ampere Surface Mount Round Lead Schottky Barrier Rectifier Diodes

FEATURE

- ◆ Standard MBR 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

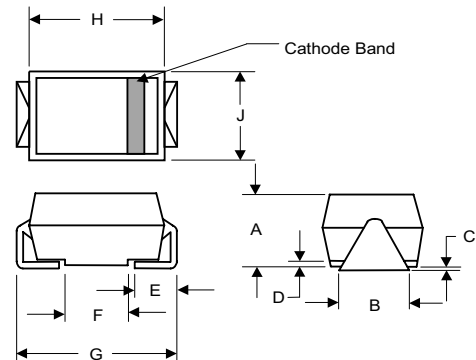
Weight: 0.22 gram approximately

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_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	SK 1035	SK 1045	SK 105	SK 106	SK 109	SK 1010	SK 1015	SK 1020	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	35	45	50	60	90	100	150	200	V
Maximum RMS voltage	V _{RMS}	24	31	35	42	63	70	105	140	V
Maximum DC blocking voltage	V _{DC}	35	45	50	60	90	100	150	200	V
Maximum average forward rectified current	I _{F(AV)}	10								A
Peak repetitive forward current (Rated VR, Square Wave, 20KHz)	I _{FRM}	20								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150								A
Peak repetitive reverse surge current (Note 1)	I _{RRM}	1.0			0.5					A
Maximum instantaneous forward voltage (Note 2) I _F =10A, T _J =25°C I _F =10A, T _J =125°C	V _F	0.70		0.80		0.85		1.05		V
Maximum reverse current @ rated VR T _J =25°C T _J =125°C	I _R	0.1								mA
		15		10		6				
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 +150								°C
Storage temperature range	T _{STG}	- 55 to +175								°C

Note 1: tp = 2.0 μs, 1.0KHz

Note 2: Pulse test with PW=300μs, 1% duty cycle

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1- FORWARD CURRENT DERATING CURVE

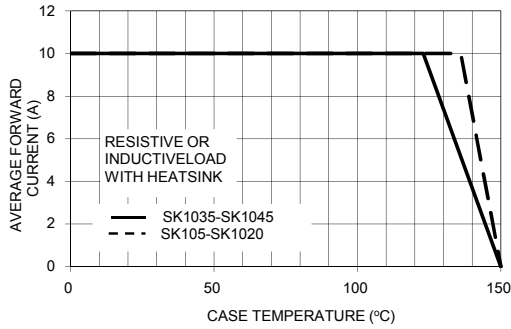


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

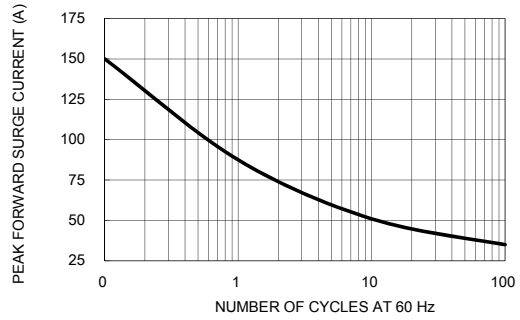


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

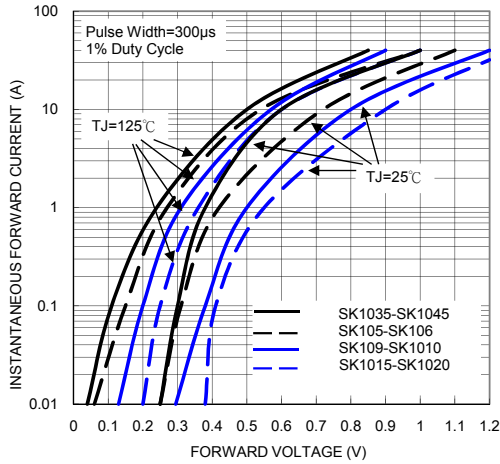


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

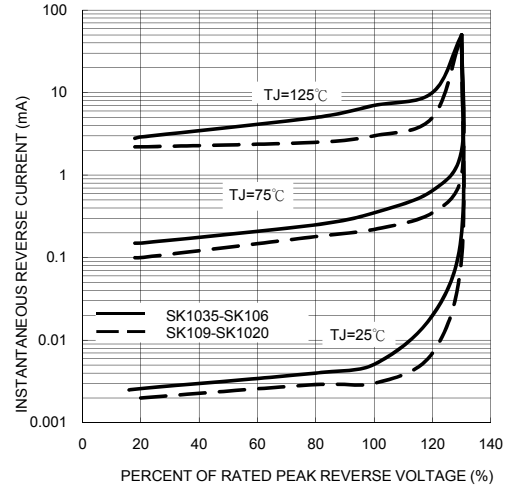


FIG. 5- TYPICAL JUNCTION CAPACITANCE

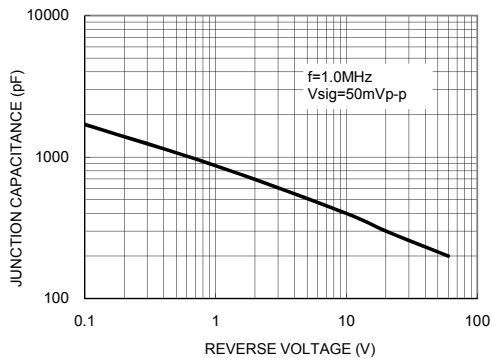


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTIC

