SKN0 THRU SKN2

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

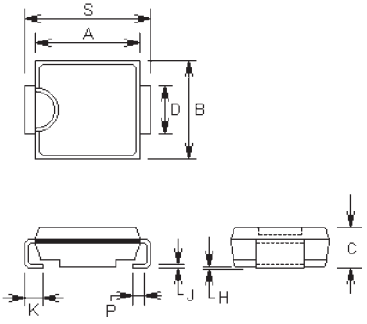
Reverse Voltage - 20 to 40 Volts
Forward Current - 3.0 Amperes

GOOD-ARK

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250℃/10 seconds at terminals

SMC



DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.260	0.280	6.60	7.11	
B	0.220	0.240	5.59	6.10	
C	0.075	0.095	1.90	2.41	
D	0.115	0.121	2.92	3.07	
H	0.0020	0.0060	0.051	0.152	
J	0.006	0.012	0.15	0.30	
K	0.030	0.050	0.76	1.27	
P	0.020 REF		0.51 REF		
S	0.305	0.320	7.75	8.13	

Mechanical Data

- **Case:** SMC molded plastic body
- **Terminals:** SMC leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.007 ounce, 0.25 gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

	Symbols	SKN0	SKN1	SKN2	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	Volts
Non-repetitive peak reverse voltage	V_{RSM}	24	36	48	Volts
Maximum average forward rectified current at T_L=75℃	$I_{(AV)}$	3.0			Amps
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) at T_L=75℃	I_{FSM}	80.0			Amps
Maximum instantaneous forward voltage at 3.0A (Note 1) Maximum instantaneous forward voltage at 9.4A (Note 1)	V_F V_F	0.475 0.850	0.500 0.900	0.525 0.950	Volts Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note1) T_A=25℃ T_A=100℃	I_R	2.0 20.0			mA
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	40.0 10.0			℃/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +125			℃

Notes:

(1) Pulse test: 300uS pulse width, 1% duty cycle

(2) Mounted on P.C. Board with 14mm^2 (0.013mm thick) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

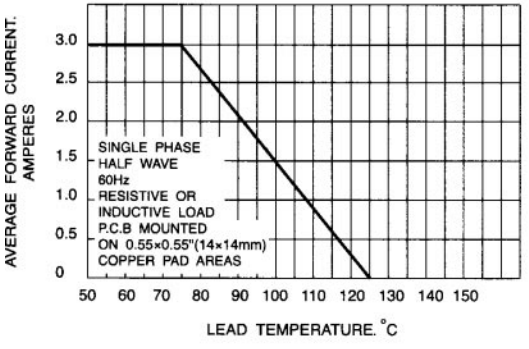


FIG. 1 – FORWARD CURRENT DERATING CURVE

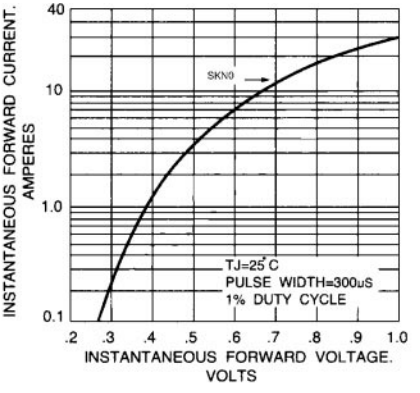


FIG. 2 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

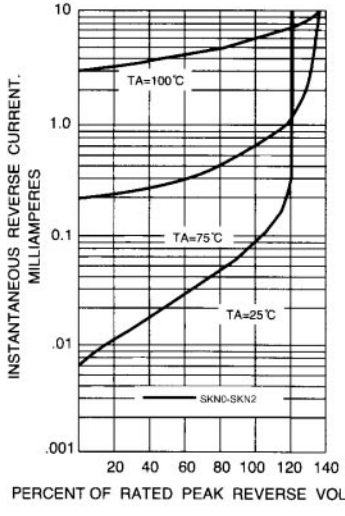


FIG. 3 – TYPICAL REVERSE CHARACTERISTICS

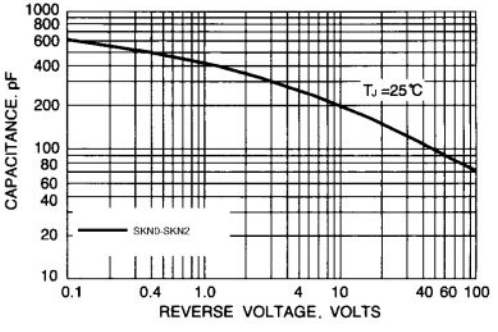


FIG. 4 – TYPICAL JUNCTION CAPACITANCE

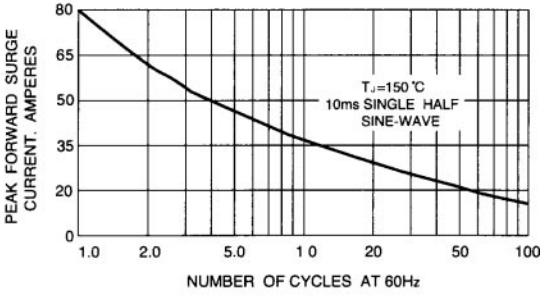


FIG. 5 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT