

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 --- 60 V
CURRENT: 3.0 A

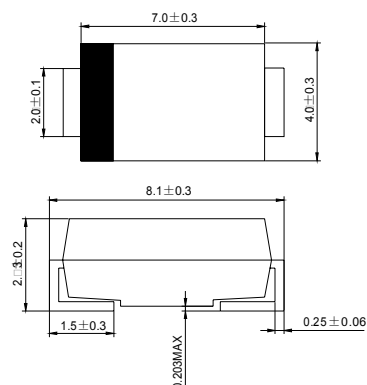
FEATURES

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

MECHANICAL DATA

- ◇ Case: JEDEC NSMC, molded plastic over passivated chip
- ◇ Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode end

NSMC



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		B320N	B330N	B340N	B350N	B360N	UNITS
Device marking code		B2N	B3N	B4N	B5N	B6N	
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V _{RWS}	14	21	28	35	42	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	V
Maximum average forw ord rectified current at T _L (SEE FIG.1) (NOTE 2)	I _(AV)	3.0					A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load(JEDEC Method)	I _{FSM}	100.0					A
Maximum instantaneous forw ard voltage at 3.0A(NOTE.1)	V _F	0.50			0.70		V
Maximum DC reverse current @T _A =25°C at rated DC blockjing voltage(NOTE1) @T _A =100°C	I _R	0.5					mA
		20					
Typical thermal resitance (NOTE2)	R _{θJA}	50.0					°C/W
	R _{θJL}	10.0					
Operating junction and storage temperature range	T _{STG}	-55--- +150					°C
Storage temperature range	T _J	-55--- +125					°C

NOTE: 1. Pulse test: 300 μs pulse width, 1% duty cycle

2. P.C.B. mounted with 0.55"X0.55" (14.0X14.0mm²) copper pad areas

FIG.1 – FORWARD DERATING CURVE

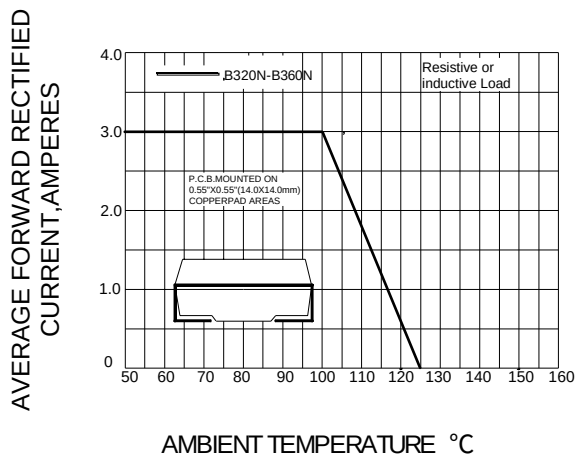


FIG.2-- PEAK FORWARD SURGE CURRENT

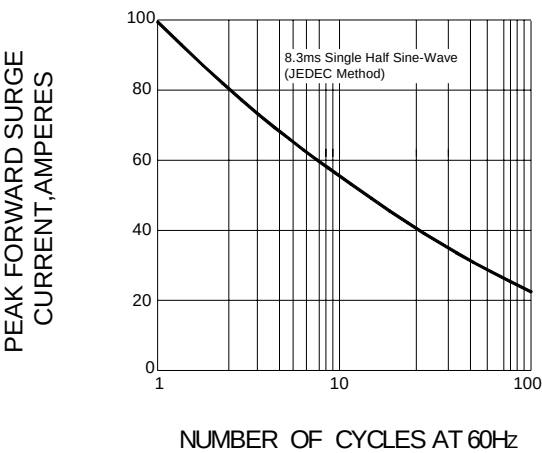


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

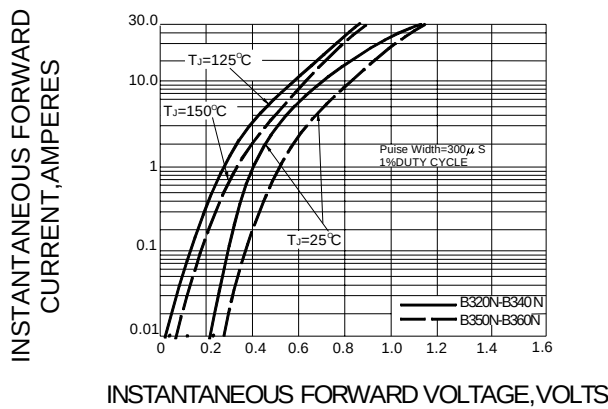


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

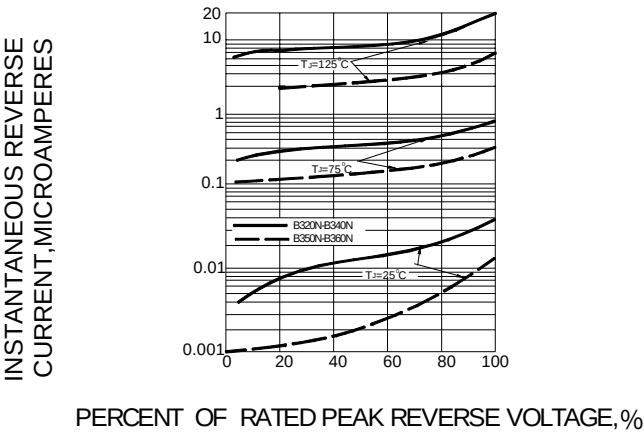


FIG.5-TYPICAL JUNCTION CAPACITANCE

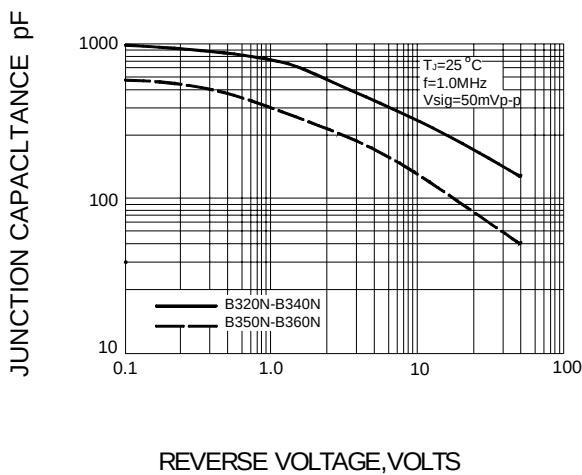


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

