

1 AMP MINIATURE BRIDGE RECTIFIERS

FEATURES

- Glass Passivated for high reliability/temperature performance
- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 30 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications

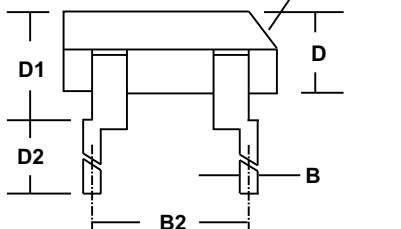
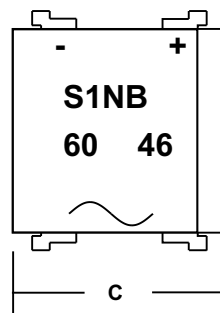
RoHS COMPLIANT

MECHANICAL DATA

- Case: Molded Epoxy (UL Flammability Rating 94V-0)
- Terminals: Rectangular pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any

MECHANICAL SPECIFICATION

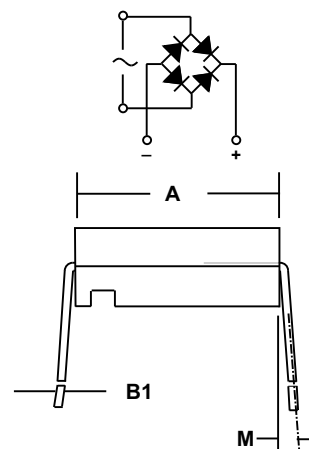
ACTUAL SIZE OF
MDI PACKAGE



SERIES S1NB05 - S1NB100

SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	6.25	6.767	0.246	0.266
B	0.43	0.69	0.017	0.027
Bl	0.127	0.381	0.005	0.015
B2	4.75	5.26	0.187	0.207
C	6.55	7.06	0.258	0.278
D	2.27	2.8	0.09	0.11
D1		3.7		0.146
D2	2.9	3.45	0.116	0.136
E	0.8*		0.032*	
M	15° Max		15° Max	

* Chamfer - Typical



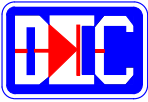
MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS								UNITS
Series Number		S1NB 05	S1NB 10	S1NB 20	S1NB 40	S1NB 60	S1NB 80	S1NB 100		
Maximum DC Blocking Voltage	V _{RM}	50	100	200	400	600	800	1000	VOLTS	
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700		
Maximum Peak Recurrent Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000		
Average Forward Rectified Current @ T _A = 40° C	I _O	1								AMPS
Peak Forward Surge Current. Single 60Hz Half-Sine Wave Superimposed on Rated Load (JEDEC Method).	I _{FSM}	50								
Maximum Forward Voltage (Per Diode) at 1 Amp DC	V _{FM}	1.05								VOLTS
Maximum Average DC Reverse Current @ T _A = 25° C At Rated DC Blocking Voltage @ T _A = 125° C	I _{RM}	5.0 0.5								A mA
Typical Thermal Resistance Junction to Ambient (Note 1) Junction to Lead (Note 1)	R _{θJA} R _{θJL}	40 15								°C/W
Minimum Insulation Breakdown Voltage (Circuit to Case)	V _{ISO}	2400								VOLTS
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150								°C

NOTES: (1) Bridge mounted on PC Board with 0.5" sq. (13mm sq.) copper pads

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RATING & CHARACTERISTIC CURVES FOR SERIES S1NB05 - S1NB100

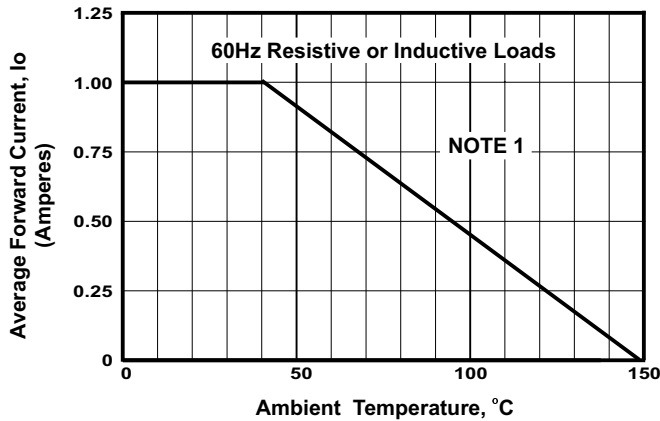


FIGURE 1. FORWARD CURRENT DERATING CURVE

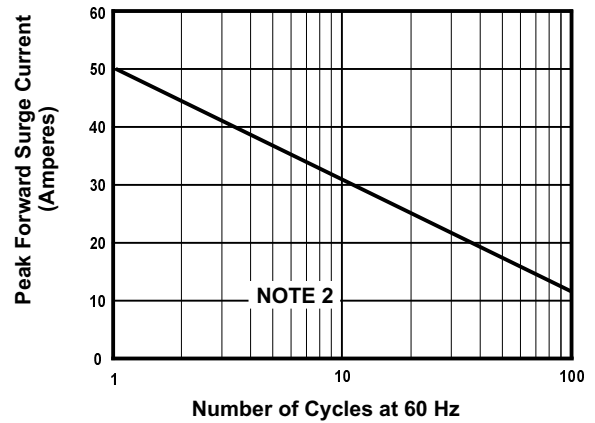


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

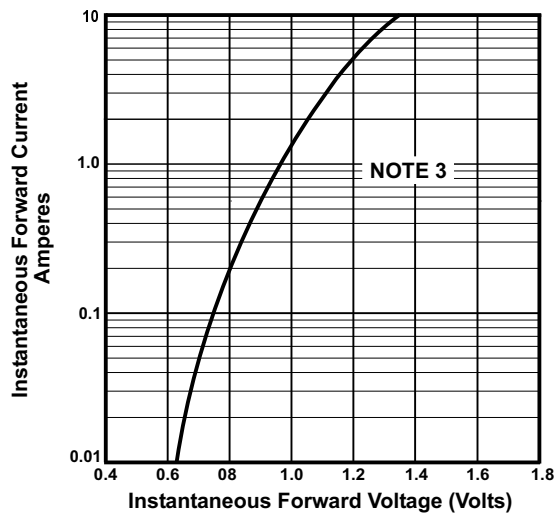


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

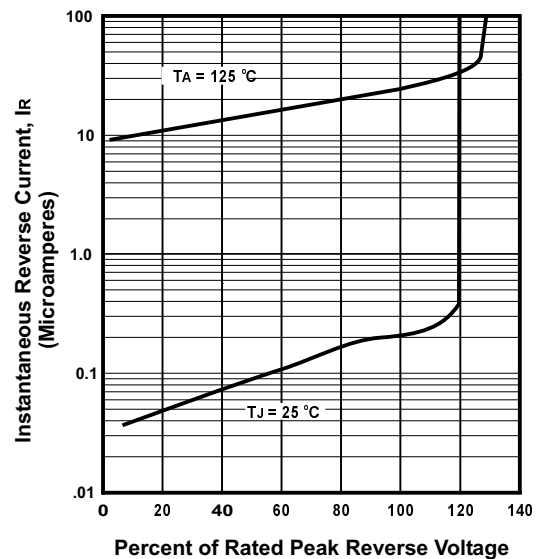


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

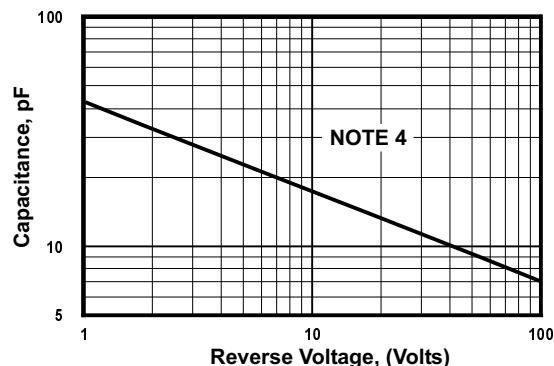


FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

NOTES

- (1) Mounted on PC Board With 0.5" Sq. (13 mm Sq.) Solder Pads
- (2) $T_J = 150^\circ\text{C}$
- (3) $T_J = 25^\circ\text{C}$; Pulse Width = 300 Sec, 1% Duty Cycle
- (4) $T_J = 25^\circ\text{C}$; $f = 1\text{ MHz}$; $V_{sig} = 50\text{mVp-p}$