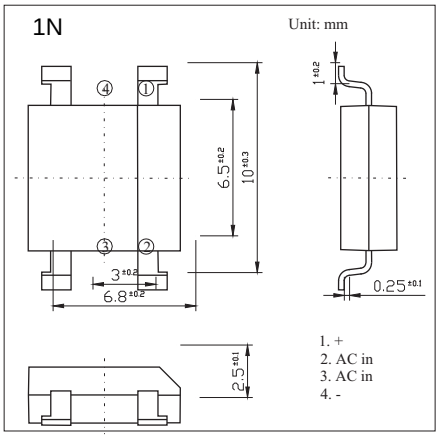
TY Semicondutor®

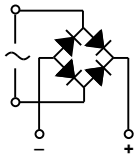
Product specification

S1NB05 - S1NB100

■ Features

- Glass passivated chip junctions
- Surge overload rating to 30 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications





■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	S1NB05	S1NB10	S1NB20	S1NB40	S1NB60	S1NB80	S1NB100	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RMM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Forward Rectified Current T_A=@ 40℃	I_O	1.0							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single half-sine-wave Superimposed on Rated Load (JEDECmethod)	I_{FSM}	50							A
Forward Voltage (per element) @ I_F = 1.0A	V_F	1.05							V
Reverse Current(per element) @ Rated V_R, T_A = 25℃ T_A = 125℃	I_R	5 500							μA
Minimum Insulation Breakdown Voltage (Circuit to Case)	V_{ISO}	2400							V
Typical Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	40							℃/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +150							℃

Notes: 1. Device mounted on PCB with 0.5 × 0.5" (13 × 13mm).

S1NB05 - S1NB100

■ Typical Characteristics

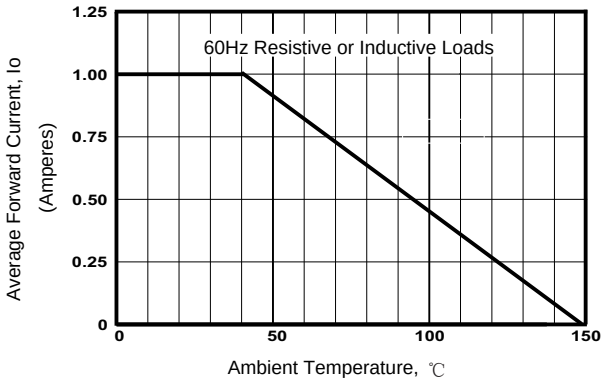


FIGURE 1. FORWARD CURRENT DERATING CURVE

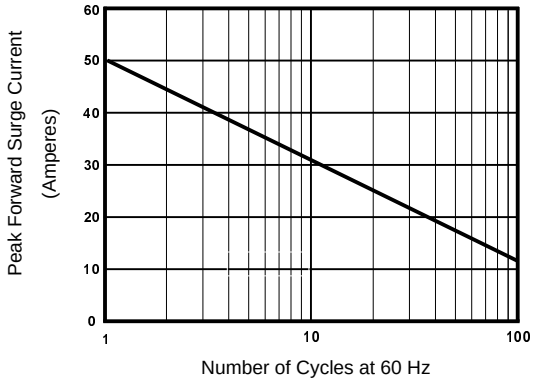


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

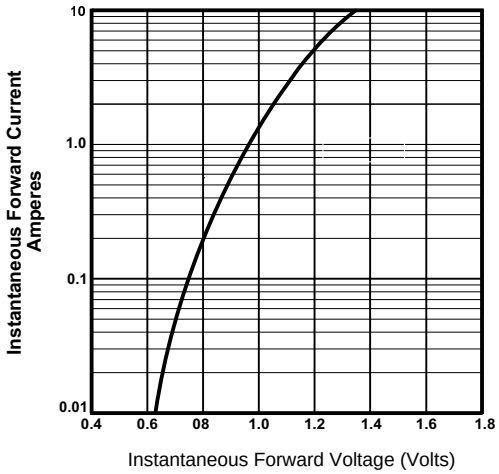


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

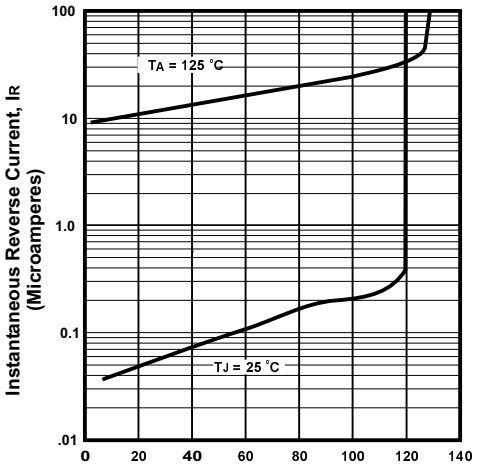


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

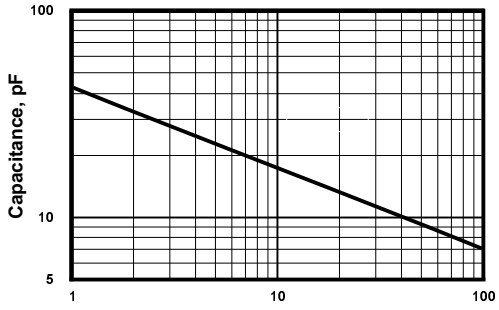


FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE