

# Schottky Barrier Rectifiers **multicomp**PRO

**RoHS  
Compliant**



## Features

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop, low switching losses
- High surge capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- The plastic material carries U/L recognition 94V-0

## Mechanical Data

- Case: JEDEC DO-27, molded plastic
- Terminals : Axial lead, solderable per MIL-STD-202, method 208
- Polarity: Color band denotes cathode
- Weight: 0.041 ounces, 1.15 grams
- Mounting position: Any

## Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, halfwave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.

		1N5820	1N5821	1N5822	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	
Maximum average forward rectified current 9.5mm lead length, @TA=75°C	$I_{F(AV)}$	3			A
Peak forward surge current 8.3ms single half -sine-wave superimposed on rated load	$I_{FSM}$	80			
Maximum instantaneous forward voltage @ 3A (Note 1) @ 9.4A	$V_F$	0.475 0.85	0.5 0.9	0.525 0.95	V
Maximum reverse current @TA=25°C at rated DC blocking voltage @TA=100°C	$I_R$	2 20			mA
Typical junction capacitance (Note2)	$C_J$	210	165		pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	20			°C
Operating junction temperature range	$T_J$	- 55 to + 125			
Storage temperature range	$T_{STG}$	- 55 to + 150			

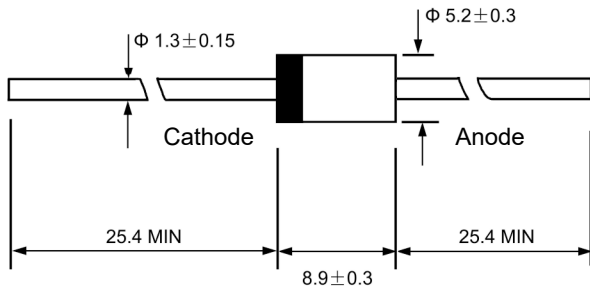
NOTE: 1. Pulse test : 300  $\mu$ s pulse width, 1% duty cycle.

2. Measured at 1MHZ and applied reverse voltage of 4V DC.

3. Thermal resistance junction to ambient

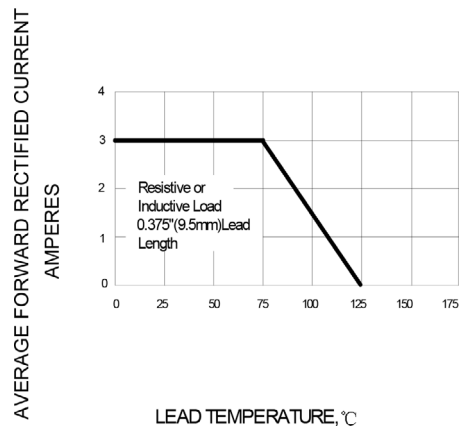
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DO - 27

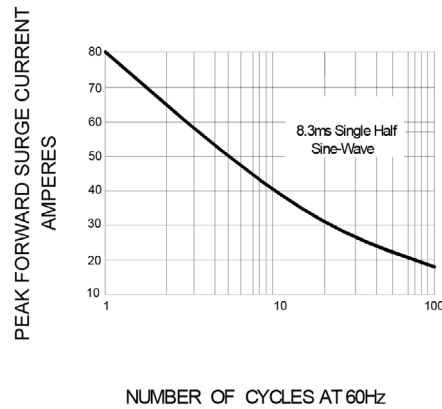


Dimensions : Millimetres

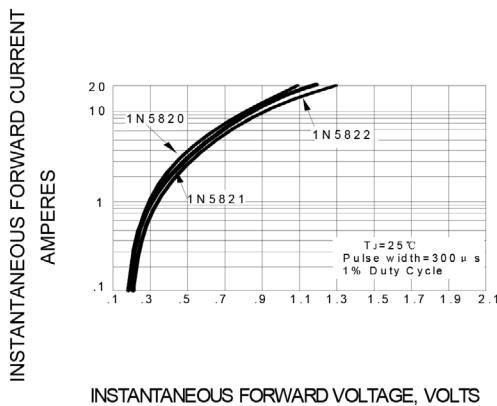
**FIG.1 – FORWARD DERATING CURVE**



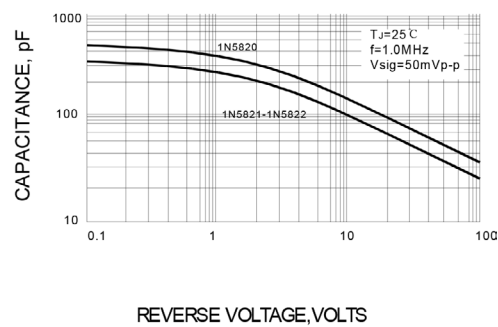
**FIG.2 – PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**



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