

3.0 A Schottky Barrier Rectifier
Rectifier Reverse Voltage 20,30,40V



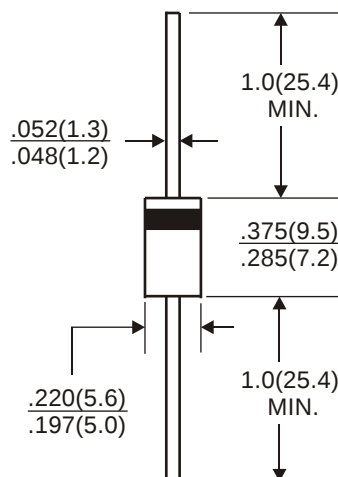
DO-27

Features

- Extremely low VF
- Epitaxial construction
- Low power loss, high efficiency
- Low stored charge, majority carrier construction
- Plastic material has UL flammability classification 94V-0

Mechanical Data

Case: Molded plastic
Terminals: Solder plated solderable per MIL-STD-202, Method 208
Polarity: Cathode band
Mounting Position: Any
Weight: 1.10 grams (approx)



All dimensions inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	1N5820	1N5821	1N5822	unit
Maximum recurrent peak reverse voltage	VRRM	20	30	40	V
Maximum RMS voltage	VRMS	14	21	28	V
Maximum DC blocking voltage	VDC	20	30	40	V
Maximum average forward rectified current 9.5 mm lead length (see fig.1)	IF(AV)	3.0			A
Peak forward surge current, single sine-wave superimposed on rated load (JEDEC Method)	IFSM	80			A
Typical thermal resistance	ReJA	30			°C/W
Typical junction capacitance	Cj	250			pF
Operating junction temperature range	TJ	-55 to + 125			°C
Storage temperature range	TSTG	-55 to + 125			°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	1N5820	1N5821	1N5822	Unit
Maximum instantaneous forward voltage drop at 3.0A	VF	0.475	0.500	0.525	V
Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =100°C	IR	2.0 20.0			mA

Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

1N5820 thru 1N5822

Fig. 1 Forward Current Derating Curve

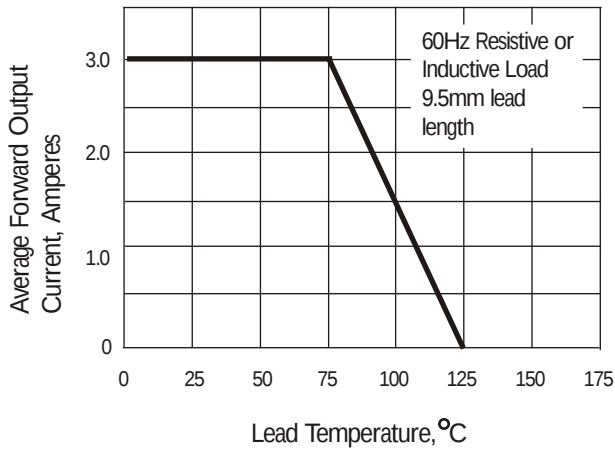


Fig. 2 Typical Instantaneous Forward Characteristics

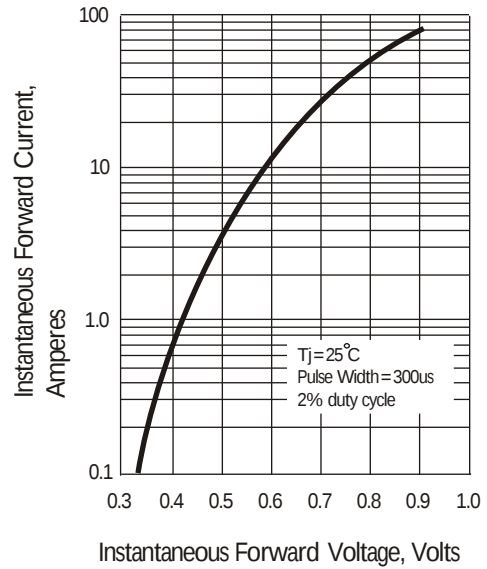


Fig. 3 Maximum Non-repetitive Forward Surge Current

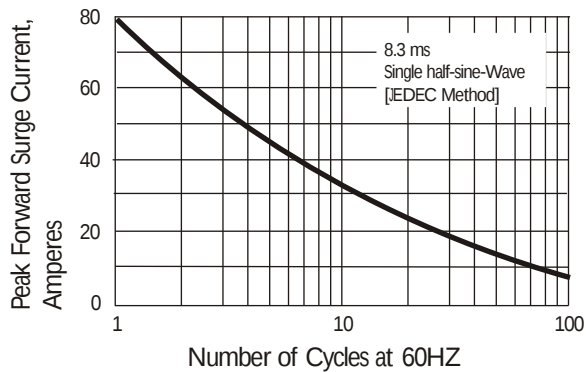


Fig. 4 Typical Junction Capacitance

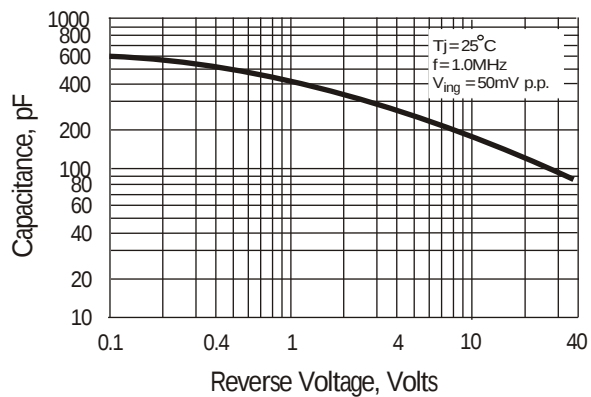


Fig. 5 Typical Reverse Characteristics

