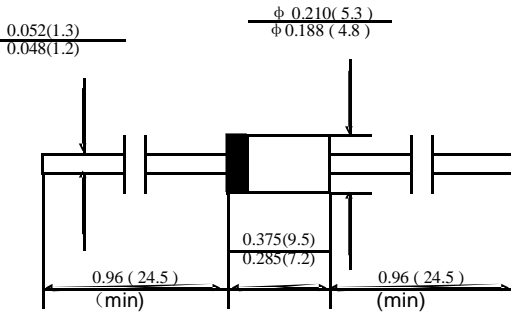


3.0AMP PLASTIC SILICON RECTIFIERS

VOLTAGE RANGE: 20 to 40 VOLTS

DO-27



inch (mm)

FEATURES

- . Low cost
- . Diffused junction
- . Low Leakage
- . Low forward voltage drop
- . High current capability
- . Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- . The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- . Case: JEDEC DO-27, molded plastic
- . Terminals: Axial leads. Solderable per MIL - STD - 750. Method 2026
- . Polarity: Color band denotes cathode
- . Weight: 0.041 ounce. 1.15 grams
- . Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%

	SYMBOL	1N5820	1N5821	1N5822	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	V
Maximum Average Forward Rectified Current 9.5mm Lead Length, T _A = 95 °C	I <sub(av)< sub=""></sub(av)<>	3.0			A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load	I _{FSM}	80.0			A
Maximum Forward Voltage at 3.0 A DC	V _F	0.475	0.500	0.525	V
Maximum Reverse Current T _j = 25 °C at Rated DC Blocking Voltage T _j = 100 °C	I _R	2.0			mA
		20.0			
Typical Thermal Resistance (Note1)	R _{QJA}	40			pF
	R _{QJL}	10			°C/W
Operating Junction Temperature Range	T _j	-55 to 125			°C
Storage Temperature Range	T _{STG}	-55 to 150			°C

- NOTE:**
1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC
 2. Thermal resistance junction to Ambient at 9.5mm lead length, P.C.B. mounted

FIG. 1-- TYPICAL REVERSE CHARACTERISTICS

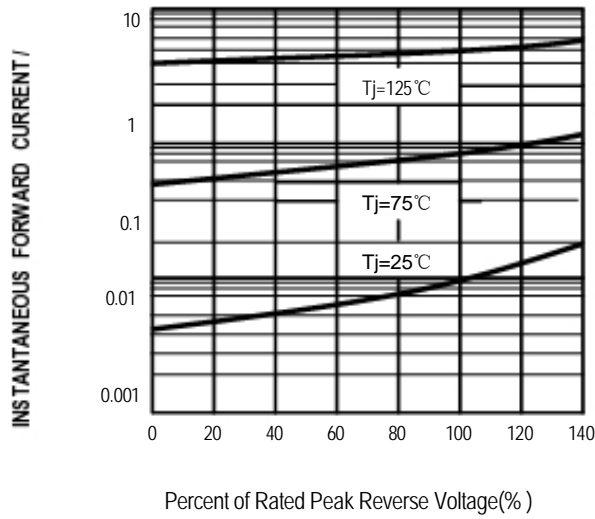


FIG. 2-- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

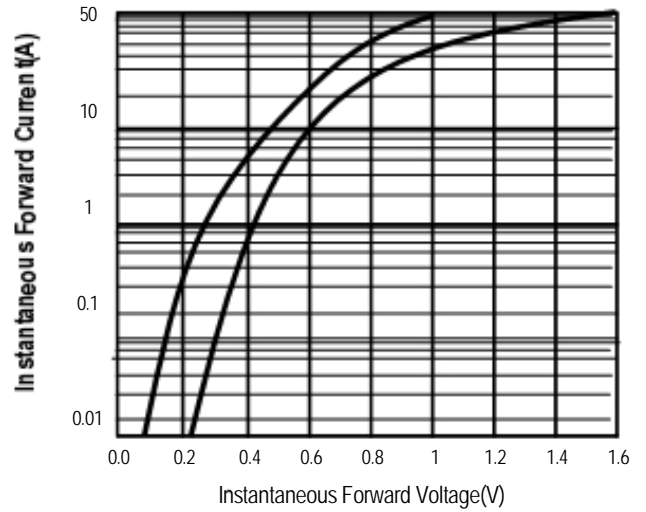


FIG. 3-- FORWARD CURRENT DERATING CURVE

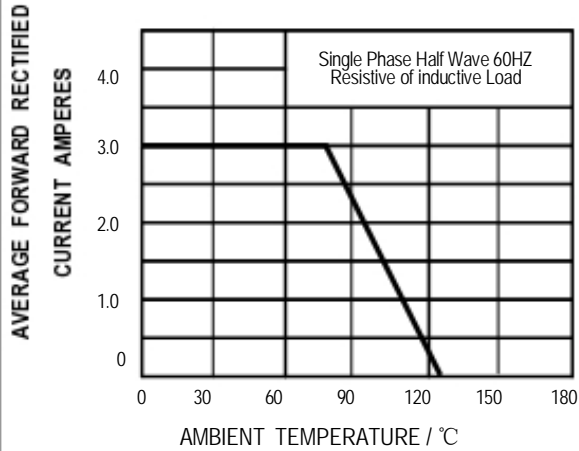


FIG. 4-- PEAK FORWARD SURGE CURRENT

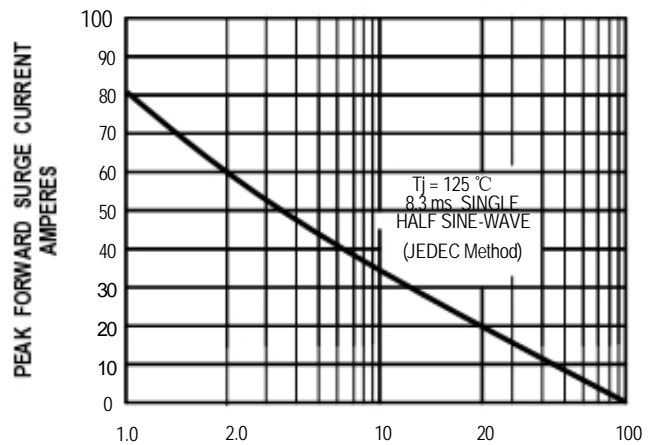


Fig.5-Typical Junction Capacitance

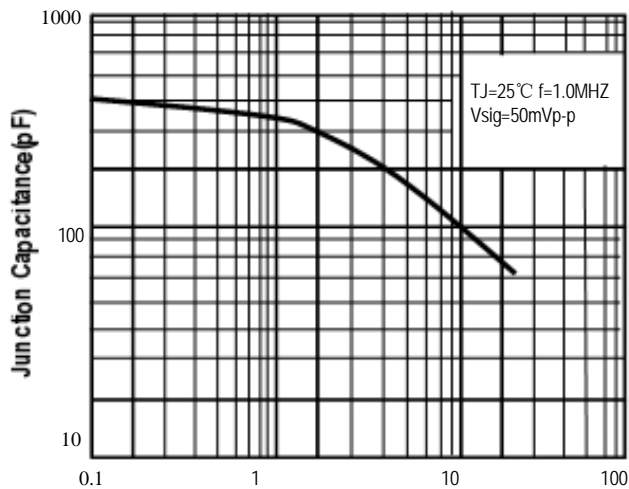


Fig.6-Transient Thermal Impedance

