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3A SCHOTTKY BARRIER RECTIFIERS

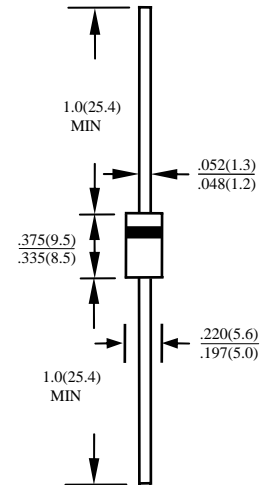
1N5820-LFR 1N5821-LFR 1N5822-LFR

FEATURES

- EXTREMELY LOW VF
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS/HIGH EFFICIENCY
- LEAD FREE

MECHANICAL DATA

- CASE: TRANSFER MOLDED, DO201AD, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 1.2 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	1N5820-LFR	1N5821-LFR	1N5822-LFR	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 SEE FIG.1	I_O	3.0			A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	80			A
TYPICAL JUNCTION CAPACITANCE (NOTE1)	C_J	250			PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	30			°C/W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 125			°C
OPERATING TEMPERATURE RANGE	T_{OP}	- 55 TO + 125			°C

ELECTRICAL CHARACTERISTICS ($A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	1N5820-LFR	1N5821-LFR	1N5822-LFR	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	0.475	0.500	0.525	V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	2.0			mA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	20.0			mA

NOTES: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

2. BOTH LEADS ATTACHED TO HEATSINK 63.5 x 63.5x1t(mm) COPPER PLATE AT LEAD LENGTH 5mm

RATING AND CHARACTERISTIC CURVES 1N5820-LFR THRU 1N5822-LFR

FIG. 1 - FORWARD CURRENT DERATING CURVE

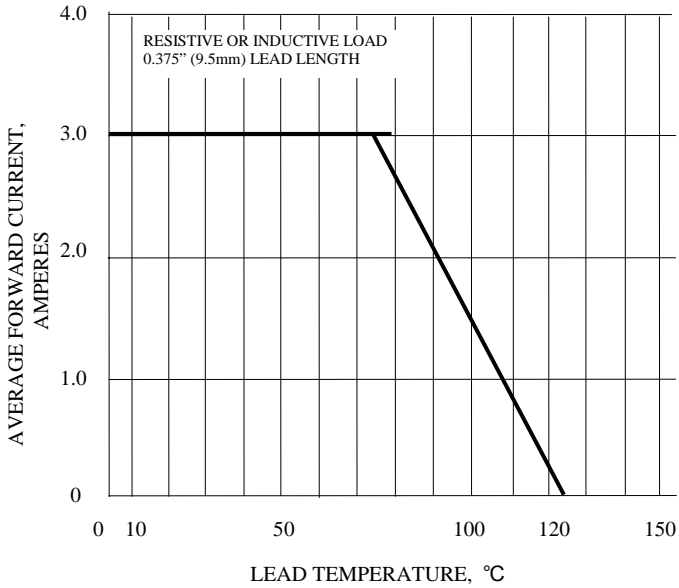


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

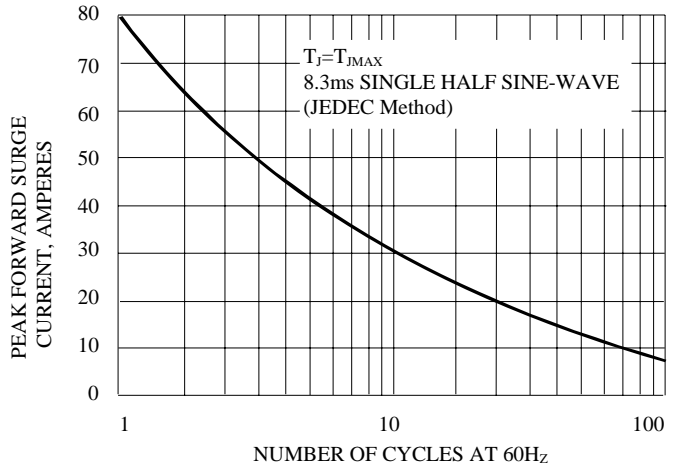


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

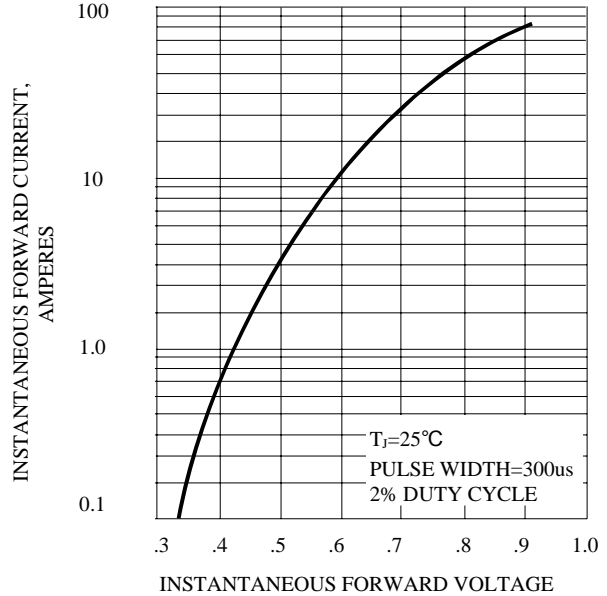


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

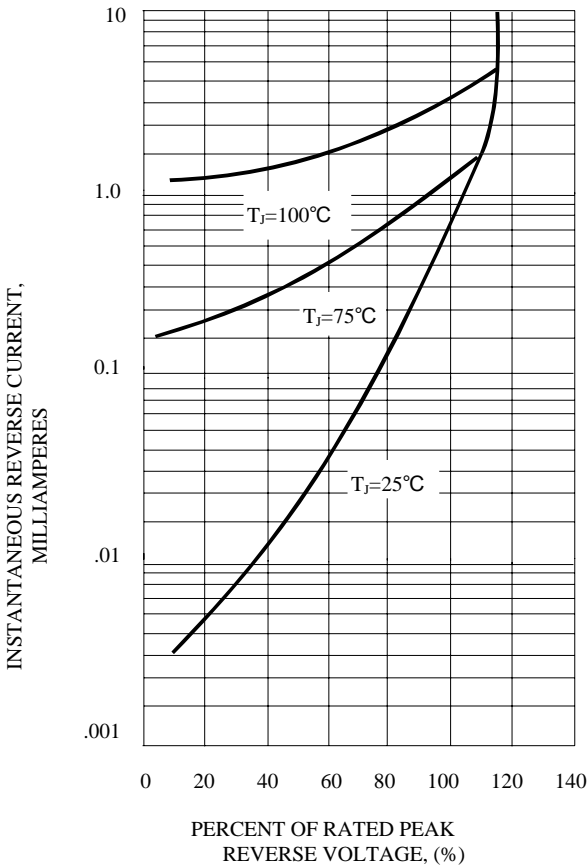


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

