



CHENMKO ENTERPRISE CO.,LTD

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 - 40 Volts CURRENT 3.0 Amperes

**1N5820PT
THRU
1N5822PT**

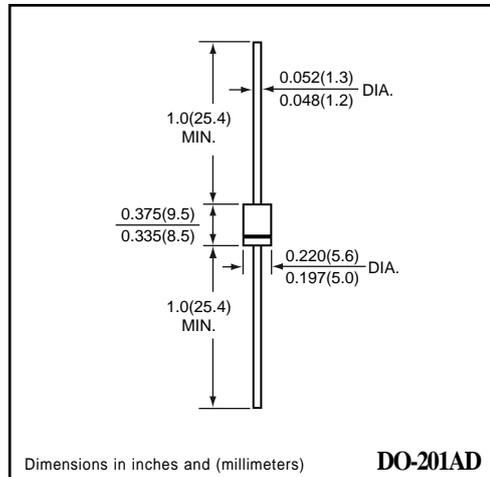
Lead free devices

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High reliability
- * High surge capability
- * High temperature soldering guaranteed : 260°C/10 seconds , 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 1.18 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%.

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	1N5820PT	1N5821PT	1N5822PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	Volts
Maximum RMS Voltage	VRMS	14	21	28	Volts
Maximum DC Blocking Voltage	Vdc	20	30	40	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at TL = 95°C	Io	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	80			Amps
Typical Junction Capacitance (Note 1)	CJ	250			pF
Typical Thermal Resistance (Note 2)	R θJA	28			°C / W
Storage and Operating Temperature Range	TJ, TSTG	-65 to +125			°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	1N5820PT	1N5821PT	1N5822PT	UNITS
Maximum Instantaneous Forward Voltage at 3.0 A DC	VF	0.475	0.500	0.525	Volts
Maximum Instantaneous Forward Voltage at 9.4 A DC	VF	0.850	0.900	0.950	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage (Note 3)	@ TA = 25°C	2.0			mAmps
	@ TA = 100°C	20			mAmps

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
 2. Thermal Resistance (Junction to Ambient) : Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.
 3. Measured at Pulse Width 300 us, Duty Cycle 2%.

RATING CHARACTERISTIC CURVES (1N5820PT THRU 1N5822PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

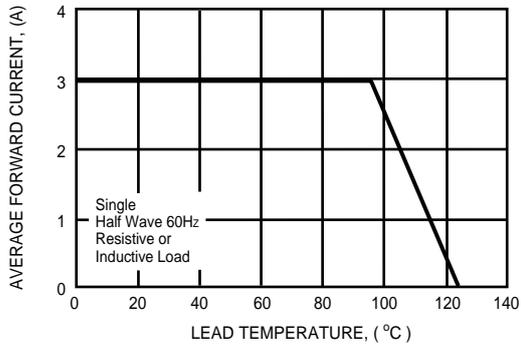


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

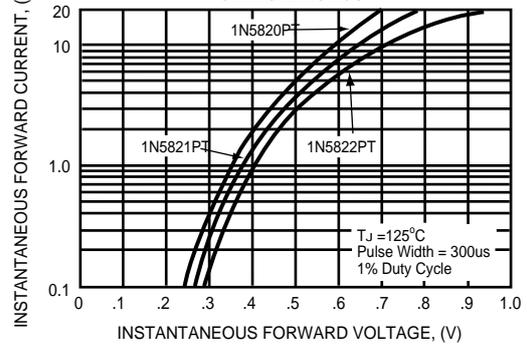


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

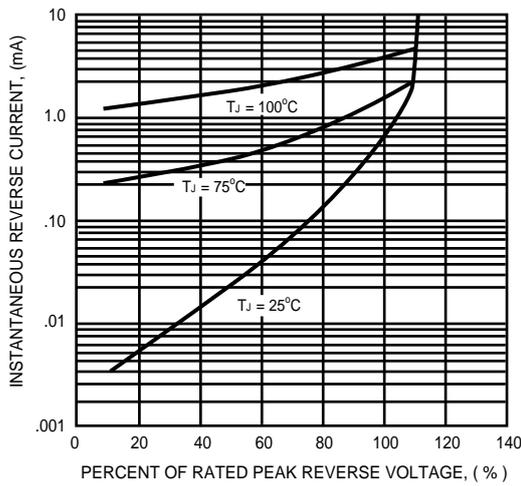


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

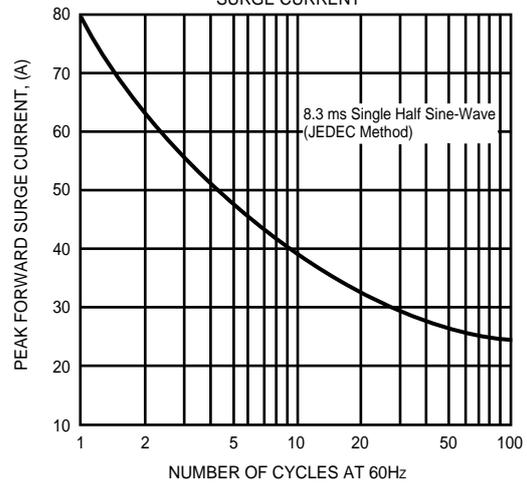


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

