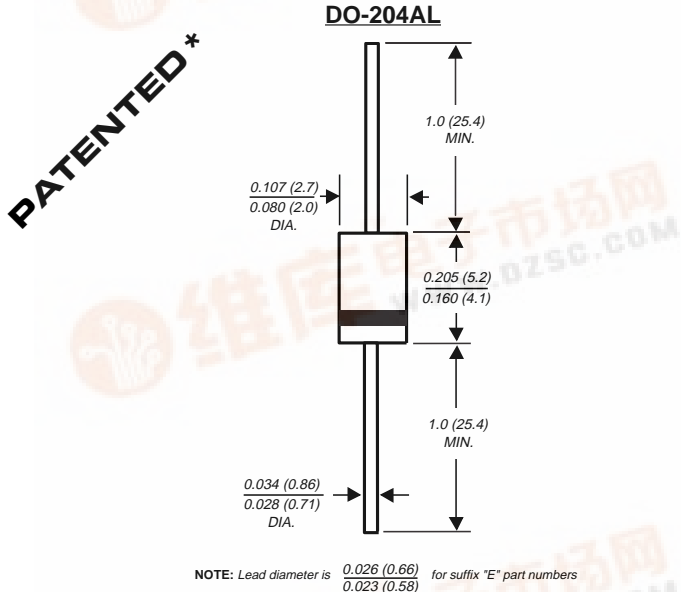


GP08A THRU GP08J

GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 0.8 Ampere



PATENTED *

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ 0.8 Ampere operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_R less than $0.1\mu\text{A}$
- ◆ High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



MECHANICAL DATA

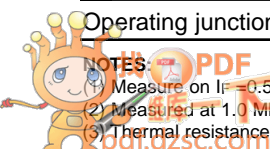
Case: JEDEC DO-204AL molded plastic over glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.012 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	GP08A	GP08B	GP08D	GP08G	GP08J	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	0.8					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_A=55^\circ\text{C}$	I_{FSM}	25.0					Amps
Maximum instantaneous forward voltage at 0.8A	V_F	1.3					Volts
Maximum full load reverse current full cycle average 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{R(AV)}$	30.0					μA
Maximum DC reverse current at rated DC blocking voltage	I_R	5.0 50.0					μA
Typical reverse recovery time (NOTE 1)	t_{rr}	2.0					μs
Typical junction capacitance (NOTE 2)	C_J	8.0					pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	55.0					$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175					$^\circ\text{C}$

NOTES:
 (1) Measure on $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
 (3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



RATINGS AND CHARACTERISTIC CURVES GP08A THRU GP08J

FIG. 1 - FORWARD CURRENT DERATING CURVE

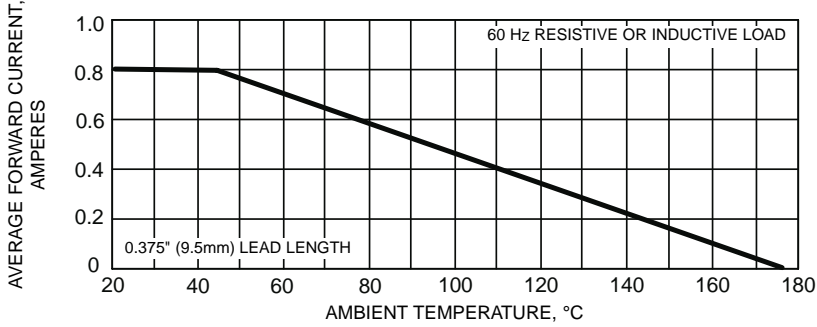


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

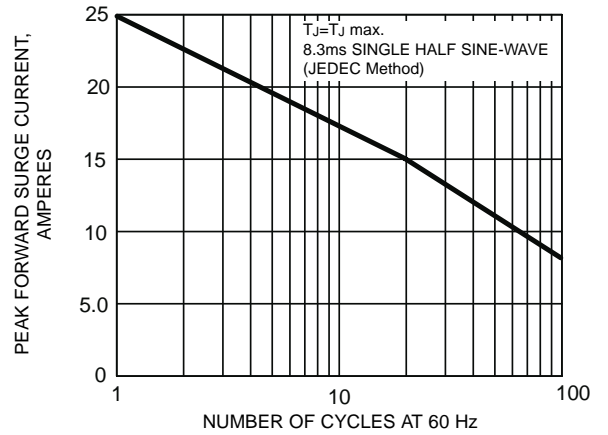


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

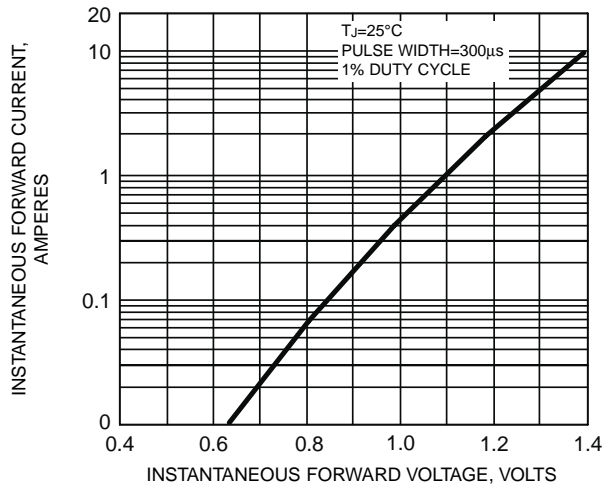


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

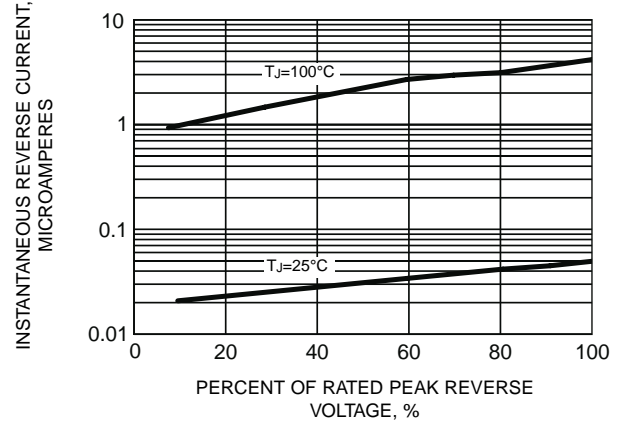


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

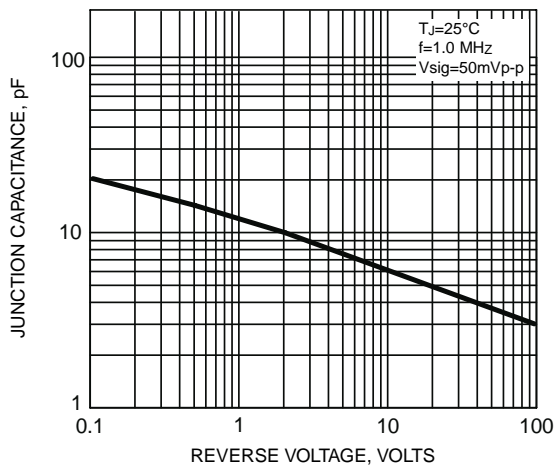


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

