

BY206GP THRU BY207GP

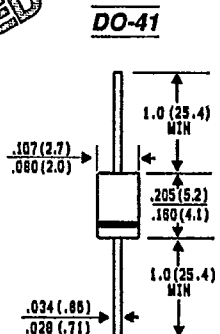
MINIATURE GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

Voltage - 350 to 600 Volts Current - 0.4 Amperes

FEATURES

- ◆ High temperature metallurgically bonded constructed rectifiers
- ◆ For use in high frequency rectifier circuits
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Fast switching for high efficiency
- ◆ Glass passivated cavity-free junction in DO-41 package
- ◆ 0.4 Ampere operation at $T_A = 55^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_R less than $1\ \mu\text{A}$
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ High temperature soldering guaranteed $350^\circ\text{C}/10\text{ seconds}/.375"$, (9.5mm) lead length at 5 lbs., (2.3kg) tension

PATENTED*



Dimensions in inches and (millimeters)

* Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 of 1976; brazed-lead assembly to Patent No. 3,930,306 of 1976 and glass composition by Patent No. 3,752,701 of 1973



MECHANICAL DATA

Case: Molded plastic over glass
Terminals: Axial leads, solderable per MIL-STD-202, Method 208
Polarity: Color band denotes cathode
Mounting Position: Any
Weight: 0.012 ounce, .3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load. For capacitive load, derate current by 20%.

	SYMBOLS	BY206GP	BY207GP	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	350	600	Volts
Maximum RMS Voltage	V_{RMS}	210	350	Volts
Maximum DC Blocking Voltage	V_{DO}	300	500	Volts
Maximum Average Forward Rectified Current .375", (9.5mm) Lead Lengths at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	0.4		Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load at $T_A = 25^\circ\text{C}$	I_{FSM}	15		Amps
Maximum Instantaneous Forward Voltage at 2.0A $T_J = 150^\circ\text{C}$	V_F	1.5		Volts
Maximum Full Load Reverse Current $T_A = 55^\circ\text{C}$ Full Cycle Average at $T_J = 125^\circ\text{C}$	I_R	2.0 200	2.0 125	μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	1.0		μs
Typical Junction Capacitance (Note 2)	C_J	15.0		pf
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	45.0		$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175		$^\circ\text{C}$

NOTES:

1. Reverse Recovery Test Conditions: $I_F = 0.4\text{A}$, $V_R = 50\text{V}$ $di/dt = 0.4/\mu\text{s}$.
2. Measured at 1 MHz and applied reverse voltage of 4.0 Vdc.
3. Thermal Resistance from Junction to Ambient at .375" (9.5mm) Lead Lengths, P.C. Board Mounted.

RATINGS AND CHARACTERISTIC CURVES BY206GP THRU BY207GP

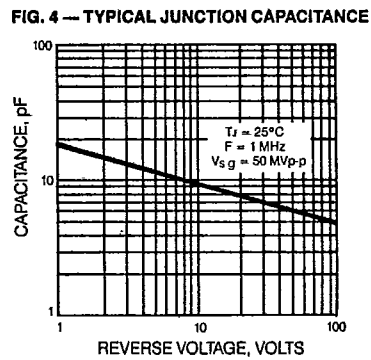
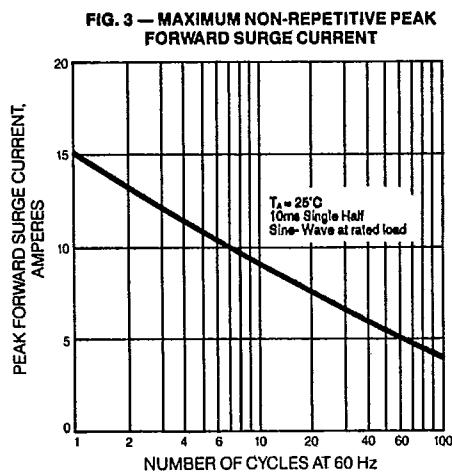
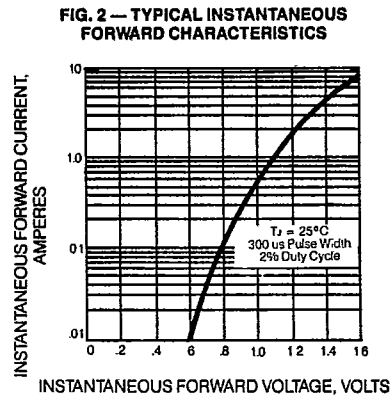
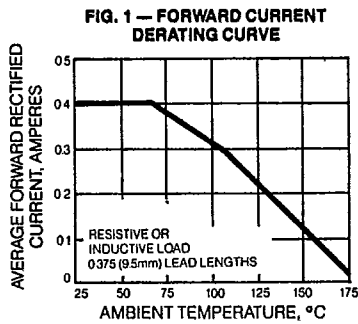


FIG. 5 — REVERSE RECOVERY TIME CHARACTERISTIC

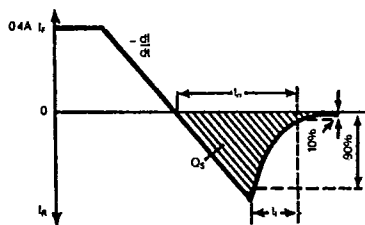


FIG. 6 — SUPERECTIFIER

