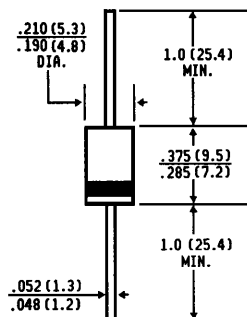


BYX55-350P AND BYX55-600P

SOFT RECOVERY, FAST SWITCHING
PLASTIC RECTIFIER
VOLTAGE - 350 to 600 Volts CURRENT - 1.2 Amperes

FEATURES

DO-201AD



Dimensions in inches
and
(millimeters)

- ◆ High surge current capability
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-O
- ◆ Void-free plastic package
- ◆ High surge current capability
- ◆ 1.2 Ampere at $T_A = 55^\circ\text{C}$ with no thermal runaway
- ◆ Fast switching for high efficiency
- ◆ High temperature soldering guaranteed: $265^\circ\text{C}/10$ seconds/.375"(.9.5mm) lead lengths at 5 lbs., (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic

Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: .04 ounce, 1.1 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	BYX55-350P	BYX55-600P	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	350	600	Volts
Maximum RMS Voltage	V _{RMS}	210	350	Volts
Maximum DC Blocking Voltage	V _{DC}	300	500	Volts
Maximum Average Forward Rectified Current .375", (4.5mm) lead lengths at T _A = 55°C	I _(AV)	1.2		Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load at T _J = 125°C	I _{FSM}	40.0		Amps
Maximum Instantaneous Forward Voltage at 5.0A	V _F	1.25		Volts
Maximum Reverse Current T _A = 25°C	I _R	10.0		μA
at Rated DC Blocking Voltage T _A = 100°C		750		
Maximum Reverse Recovery Time (Note 2) T _A = 25°C	T _{RR}	350		ns
Typical Junction Capacitance (Note 1)	C _J	28.0		pf
Typical Thermal Resistance (Note 3)	R _{θJA}	15.0		°C/W
Operating Temperature Range	T _J	-50 to +125		°C
Storage Temperature Range	T _{STG}	-50 to +150		°C

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.
2. Reverse Recovery TEST Conditions: $I_F = 1.0\text{A}$, $V_R = 30\text{V}$, $di/dt = 20\text{ A}/\mu\text{s}$.
3. Thermal Resistance from Junction to Ambient at .375" (.9.5mm) lead lengths with both leads to heat sink.

FIG. 1 — FORWARD CURRENT DERATING CURVE

375° 9.5mm LEAD LENGTH
P.C. Board mounted

RESISTIVE OR INDUCTIVE LOAD

Ambient Temperature (°C)	Average Forward Rectified Current (A)
0	1.2
50	1.2
100	0.4
150	0.0

FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

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

FIG. 4 — TYPICAL JUNCTION CAPACITANCE

**FIG. 6 — REVERSE RECOVERY TIME CHARACTERISTIC
AND TEST CIRCUIT DIAGRAM**

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AND TEST CIRCUIT DIAGRAM**