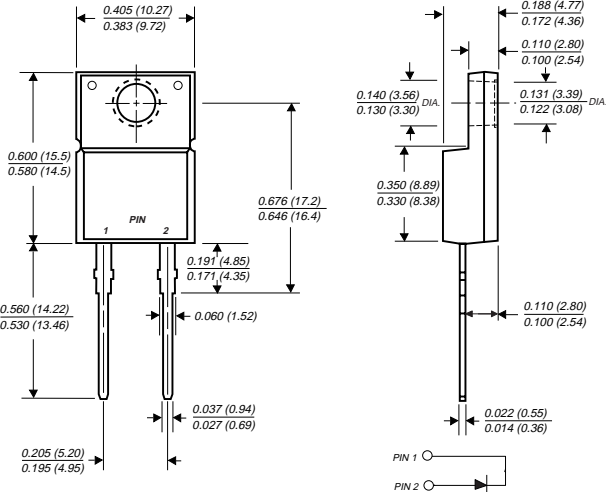


BY229X SERIES

FAST SWITCHING PLASTIC RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 8.0 Amperes

ITO-220AC



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junction
- ◆ Low leakage, high voltage
- ◆ High surge current capability
- ◆ Superfast recovery time, for high efficiency
- ◆ High temperature soldering guaranteed: 250°C, 0.25" (6.35mm) from case for 10 seconds



MECHANICAL DATA

Case: JEDEC ITO-220AC fully overmolded plastic body over passivated chip

Terminals: Plated lead solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any

Weight: 0.064 ounce, 1.81 grams

Mounting Torque: 5 in. - lbs. max.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BY229X -200	BY229X -400	BY229X -600	BY229X -800	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	200	400	600	800	Volts
Maximum RMS voltage	V _{RMS}	140	280	420	560	Volts
Maximum DC blocking voltage	V _{DC}	200	400	600	800	Volts
Maximum average forward rectified current at T _C =100°C	I _(AV)	8.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100				Amps
Maximum instantaneous forward voltage at 20A	V _F	1.85				Volts
Maximum DC reverse current at rated DC blocking voltage	I _R	10.0 300				μA
Maximum reverse recovery time (NOTE 1)	t _{rr}	145				ns
Maximum recovered stored charge (NOTE 2)	Q _{rr}	700				nC
Maximum slope of reverse recovery current (NOTE 2)	di _r /dt	60				A/μs
Maximum thermal resistance (NOTE 3)	R _{θJC}	4.8				°C/W
Typical thermal resistance, junction to air	R _{θJA}	20				°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-40 to +150				°C
RMS Isolation voltage from terminals to heatsink with RH ≤ 30%	V _{ISOL}	4500 (NOTE 4) 3500 (NOTE 5) 1500 (NOTE 6)				Volts

NOTES:

- (1) Reverse recovery test conditions: I_F=1A, V_R=30V, di/dt=50A/μs, I_{rr}=10% I_{RM}
- (2) Q_{rr} test conditions: I_F=2A, V_R=30V, di/dt=20A/μs
- (3) Thermal resistance from junction to case mounted on heatsink with heatsink compound
- (4) Clip mounting, where lead does not overlap heatsink with 0.110" offset.
- (5) Clip mounting, where leads do overlap heatsink.
- (6) Screw mounting, where washer diameter is ≤ 4.9 mm (0.19").

RATINGS AND CHARACTERISTIC CURVES BY229X SERIES

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVES

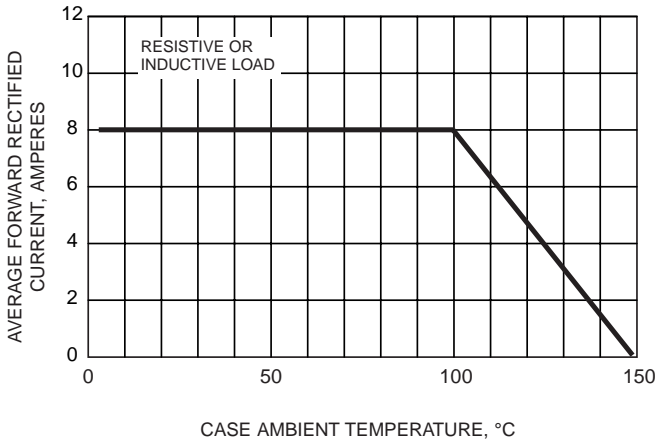


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

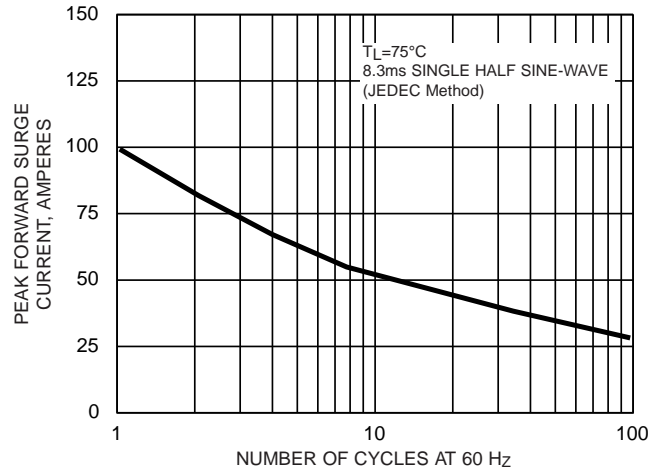


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

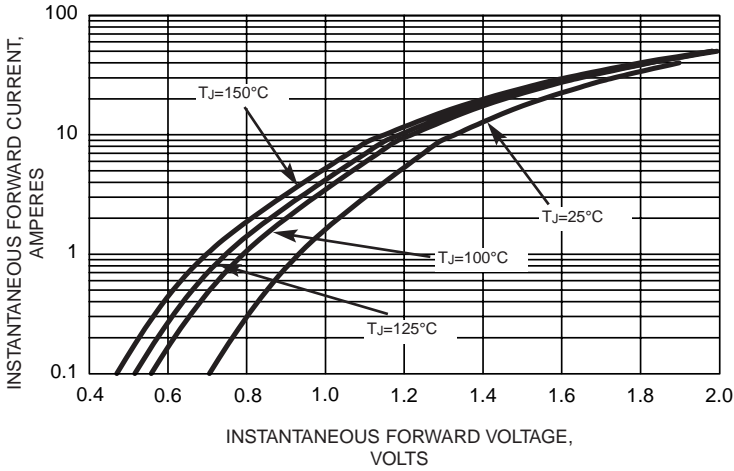


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

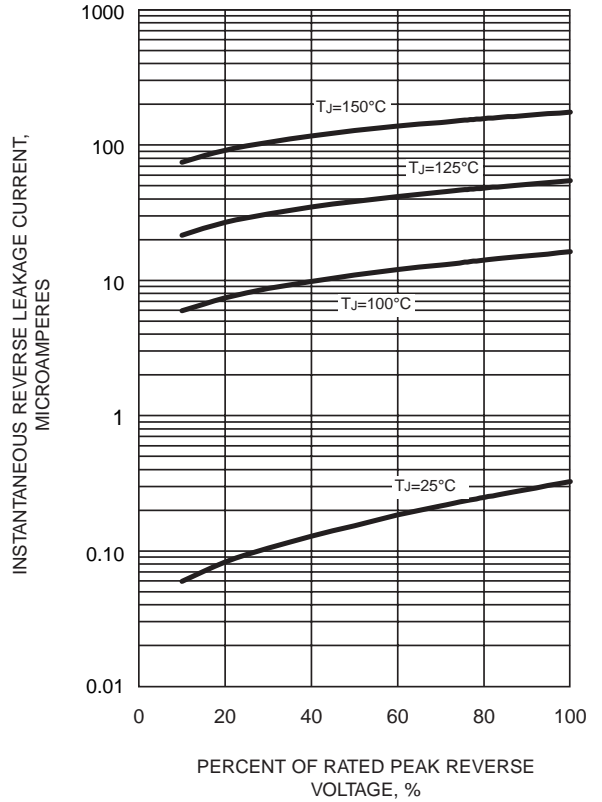


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

