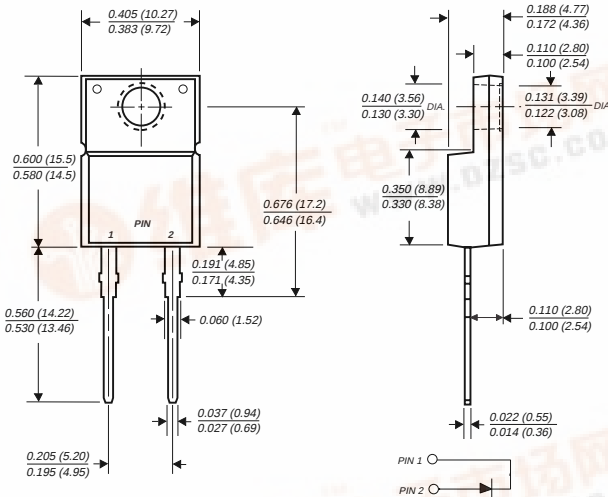


BY229X SERIES

FAST SWITCHING PLASTIC RECTIFIER

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

ITO-220AC



Dimensions in inches and (millimeters)

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	VRRM	200	400	600	800	Volts
Maximum RMS voltage	VRMS	140	280	420	560	Volts
Maximum DC blocking voltage	VDC	200	400	600	800	Volts
Maximum average forward rectified current at Tc=100°C	IAV	8.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100				Amps
Maximum instantaneous forward voltage at 20A	VF	1.85				Volts
Maximum DC reverse current at rated DC blocking voltage TJ=25°C at TJ=125°C	IR	10.0 300				µA
Maximum reverse recovery time (NOTE 1)	trr	145				ns
Maximum recovered stored charge (NOTE 2)	Qrr	700				nC
Maximum slope of reverse recovery current (NOTE 2)	di/dt	60				A/µs
Maximum thermal resistance (NOTE 3)	RθJC	4.8				°C/W
Typical thermal resistance, junction to air	RθJA	20				°C/W
Operating junction and storage temperature range	TJ, TSTG	-40 to +150				°C
RMS Isolation voltage from terminals to heatsink with RH ≤ 30%	VISOL	4500 (NOTE 4) 3500 (NOTE 5) 1500 (NOTE 6)				Volts

NOTES:

- (1) Reverse recovery test conditions: IF=1A, VR=30V, di/dt=50A/µs, Irr=10% IRM
- (2) On test conditions: IF=2A, VR=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

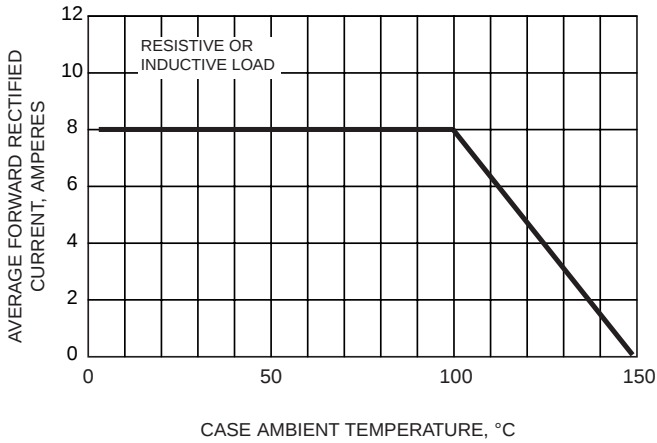


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

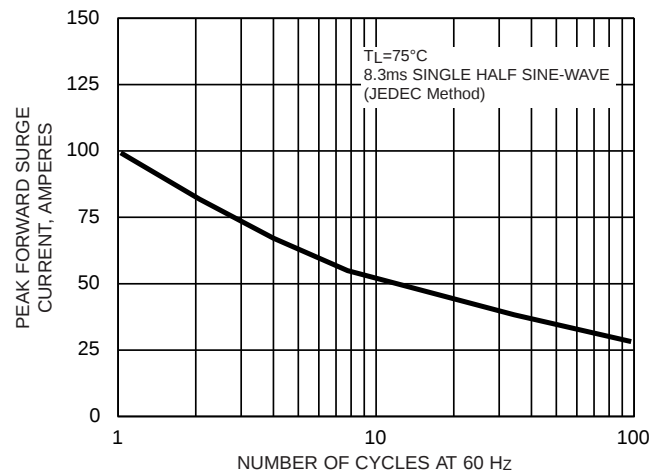


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

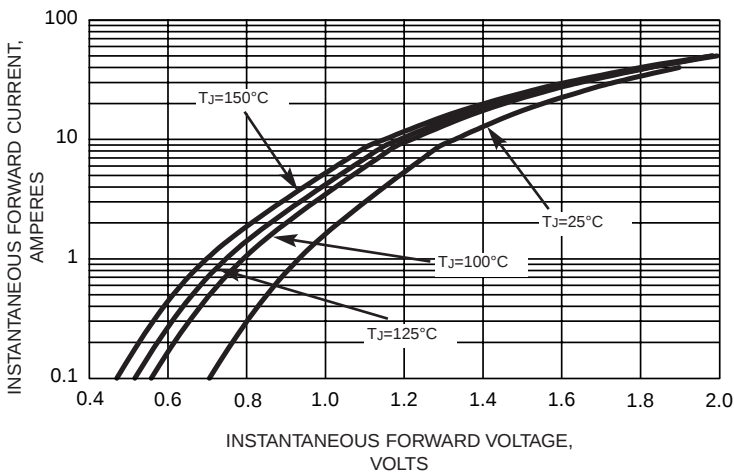


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

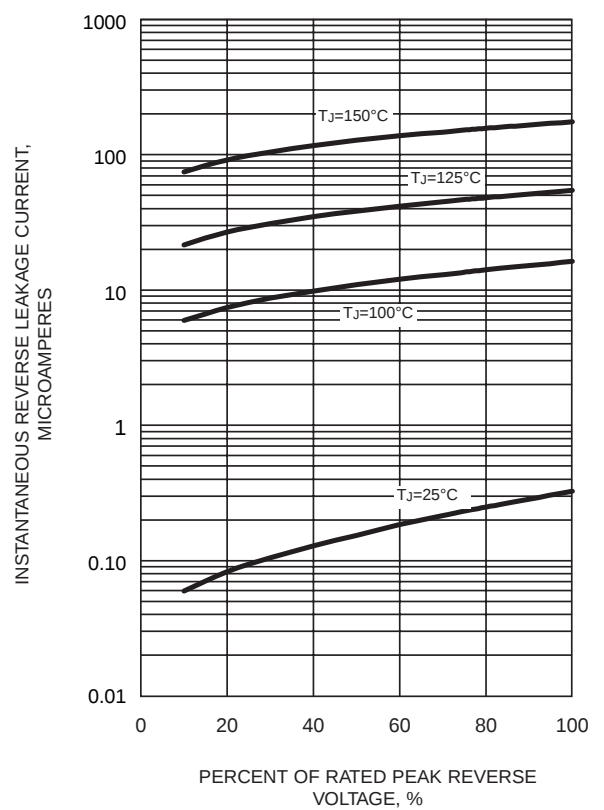


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

