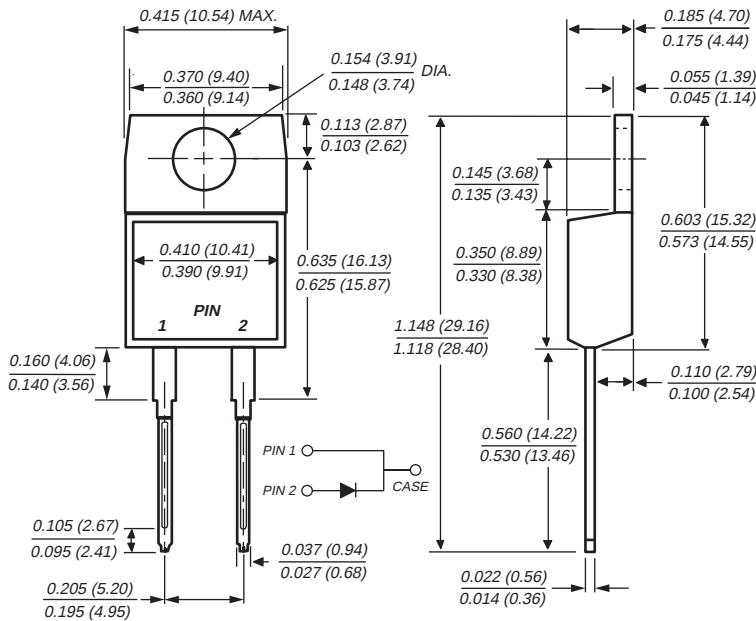


Glass Passivated General Purpose Plastic Rectifier

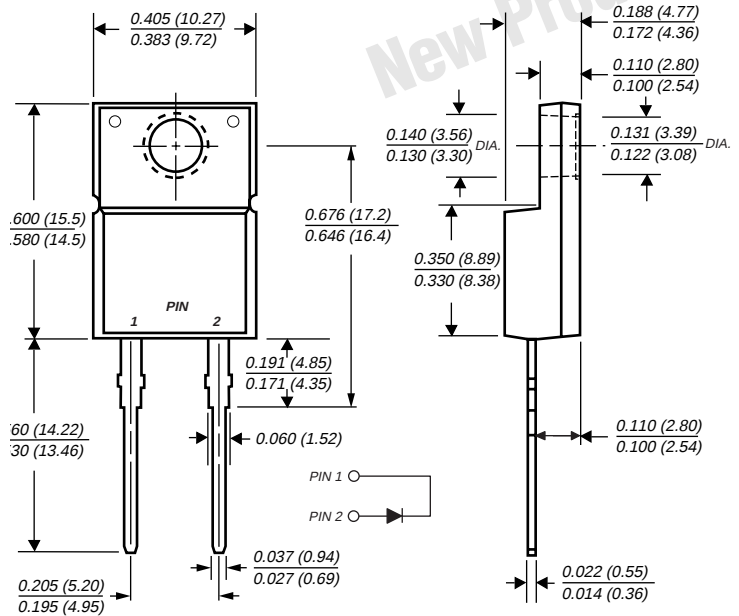
Reverse Voltage 50 to 1000V

Forward Current 8.0A

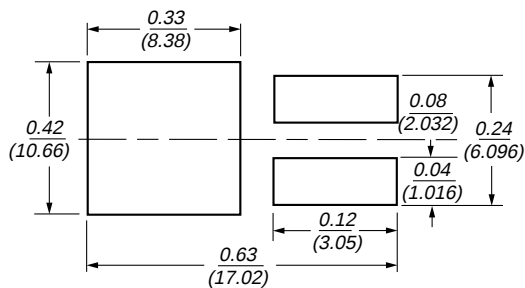
TO-220AC (NSxT)



ITO-220AC (NSFxT)

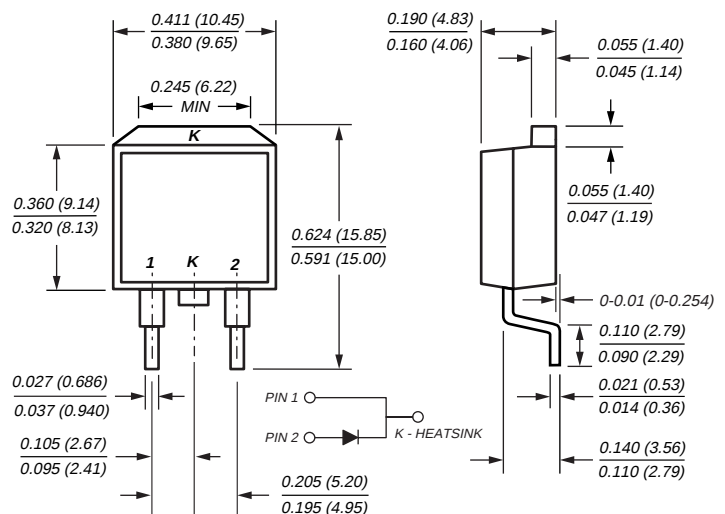


Mounting Pad Layout TO-263AB



Dimensions in inches and (millimeters)

TO-263AB (NSBxT)



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High forward current capability
- High surge current capability
- Low forward voltage drop
- Glass passivated chip junction
- High temperature soldering guaranteed: 260°C/10 seconds, 0.160" (4.06mm) lead length

Mechanical Data

Case: JEDEC TO-220AC, ITO-220AC & TO-263AB molded plastic body

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

Polarity: As marked

Mounting Torque: 10 in. -lbs. max.

Mounting Position: Any

Weight: 0.064 ounce, 1.81 grams

NSxT, NSFxT, NSBxT

Glass Passivated General Purpose Plastic Rectifier

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	NS8 AT	NS8 BT	NS8 DT	NS8 GT	NS8 JT	NS8 KT	NS8 MT	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T _C =100°C	I _{F(AV)}	8.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	125							A
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150							°C
RMS Isolation voltage (NSF type only) from terminals to heatsink with t = 1.0 second, RH ≤ 30%	V _{ISOL}	4500 (NOTE 1) 3500 (NOTE 2) 1500 (NOTE 3)							V

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	NS8 AT	NS8 BT	NS8 DT	NS8 GT	NS8 JT	NS8 KT	NS8 MT	UNITS
Maximum instantaneous forward voltage at 8.0A	V _F	1.1							V
Maximum DC reverse current at rated DC blocking voltage T _C =25°C T _C =100°C	I _R	10 100							μA
Typical junction capacitance at 4.0V, 1MHz	C _J	55							pF

Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	NSxT	NSFxT	NSBxT	UNITS
Typical thermal resistance (NOTE 4)	R _{θJC}	3.0	5.0	3.0	°C/W

NOTES:

- (1) Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset
- (2) Clip mounting (on case), where leads do overlap heatsink
- (3) Screw mounting with 4-40 screw, where washer diameter is ≤ 4.9mm (0.19")
- (4) Thermal resistance from junction to case mounted on heat sink

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

FIG.1 - FORWARD CURRENT DERATING CURVE

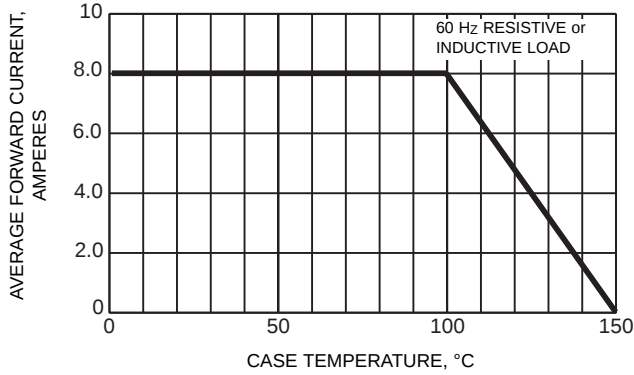


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

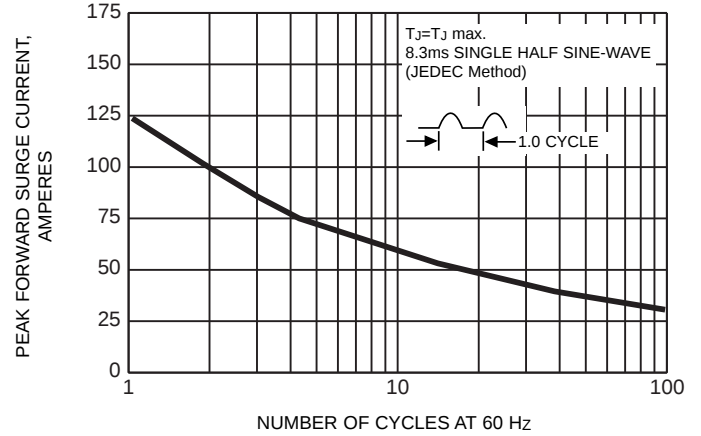


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

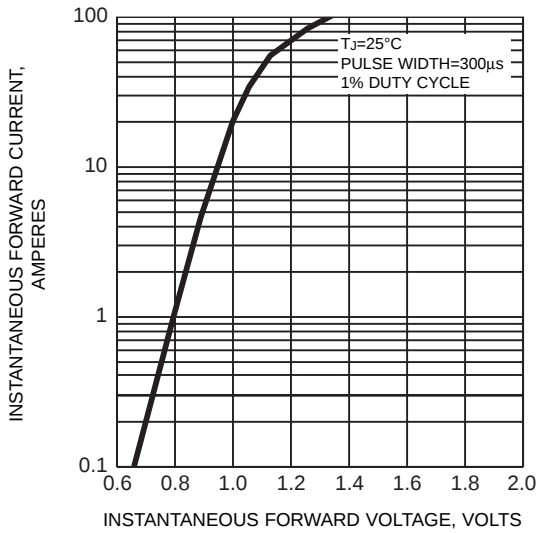


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

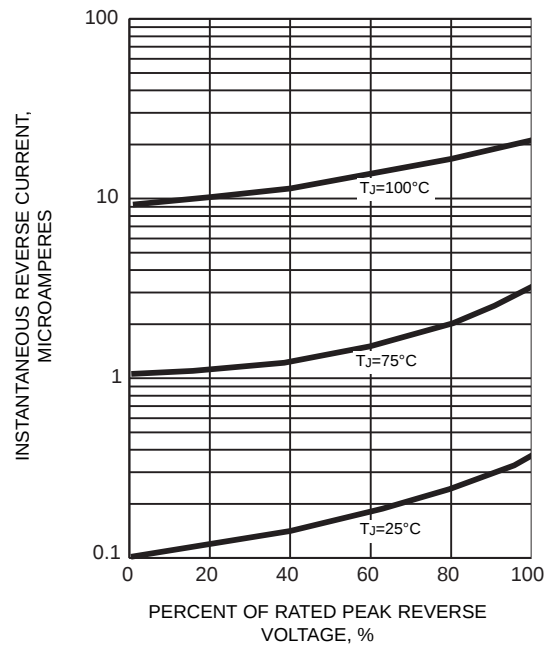


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

