



## BLOCK TYPE AUTOMOTIVE RECTIFIER

### B302 THRU B304

VOLTAGE RANGE 200 to 400 Volts

CURRENT 50.0 Amperes

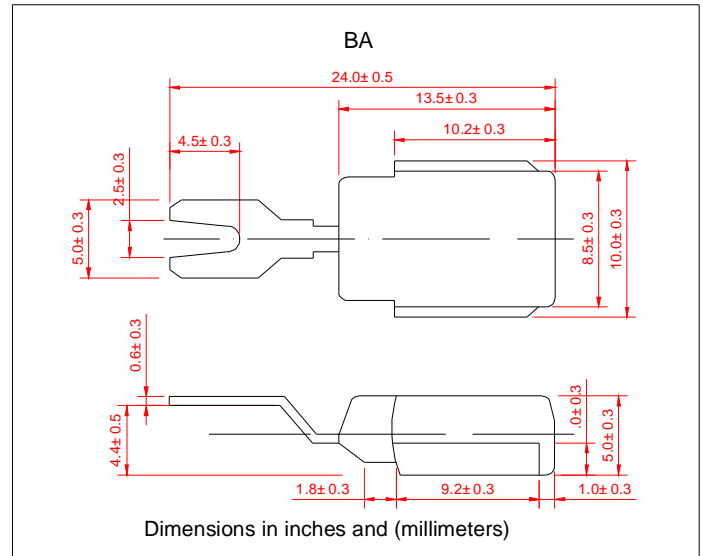
#### TECHNICAL SPECIFICATION:

#### FEATURES

- Low Leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity
- Glass passivated chip

#### MECHANICAL DATA

- Technology: vacuum soldered
- Copper cup with transfer molded plastic
- Polarity: B30-P lead-P  
B30-N lead-N
- Lead: Plated Ni lead, solderable per MIL-STD-202E method 208C
- Mounting: Press Fit
- Weight: 0.094 ounces, 2.65 grams



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60HZ, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	B502-P B502-N	B503-P B503-N	B504-P B504-N	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	300	400	Volts
Maximum RMS Voltage	$V_{RMS}$	140	210	280	Volts
Maximum DC Blocking Voltage	$V_{DC}$	200	300	400	Volts
Maximum Average Forward Rectified Current, At $T_c=105^\circ\text{C}$	$I_O$	50			Amps
Peak Forward Surge Current 3.3mS single half sine wave superimposed on Rated load (JEDEC method)	$I_{FSM}$	600			Amps
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$	1494			$\text{A}^2\text{S}$
Maximum instantaneous Forward Voltage at 100A	$V_F$	1.08			Volts
Maximum DC Reverse Current at Rated $T_A=25^\circ\text{C}$ DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	5.0			UA
		450			
Typical Thermal Resistance	$R_{\theta JC}$	1.0			$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_I, T_{STG}$	(-65 to +175)			$^\circ\text{C}$

#### Notes:

1. Enough heatsink must be considered in application.



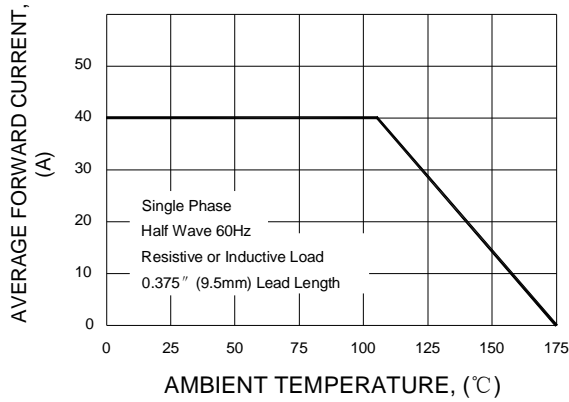
# BLOCK TYPE AUTOMOTIVE RECTIFIER

## B502 THRU B504

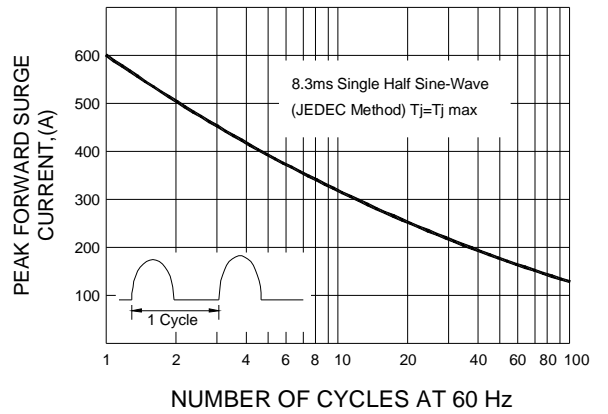
VOLTAGE RANGE	200 to 400 Volts
CURRENT	50.0 Amperes

### RATINGS AND CHARACTERISTIC CURVES B502 THRU B504

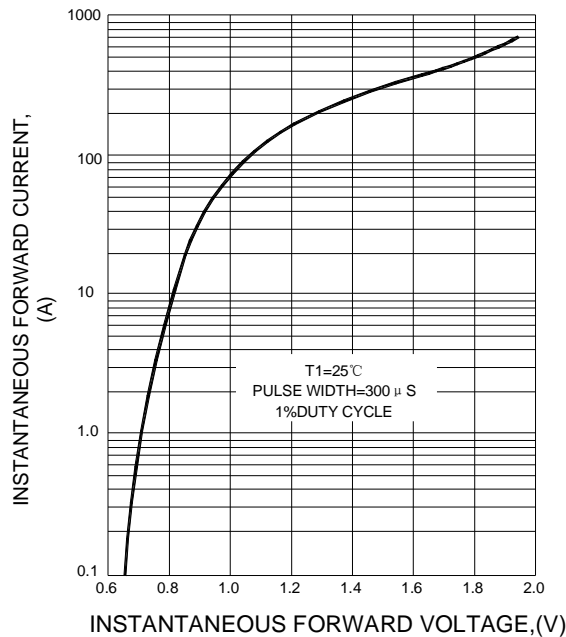
F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE



F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION

