



BLOCK TYPE AUTOMOTIVE RECTIFIER

B302 THRU B304

VOLTAGE RANGE 200 to 400 Volts

CURRENT 50.0 Amperes

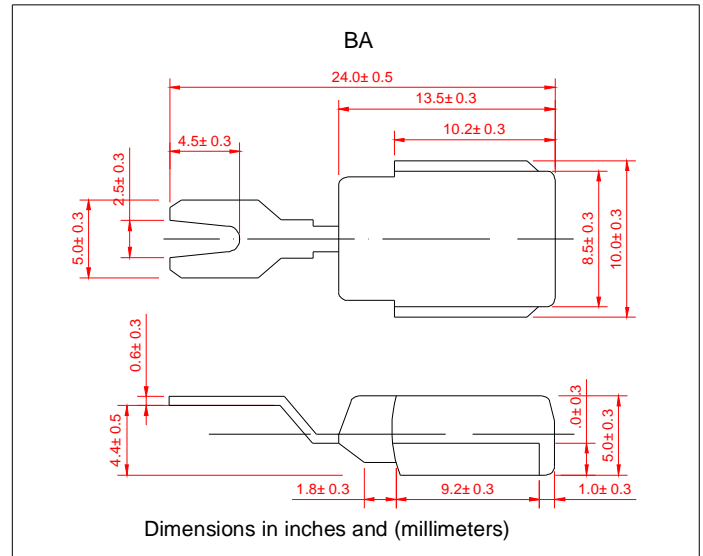
TECHNICAL SPECIFICATION:

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			A^2S
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_J, T_{STG}	(-65 to +175)			$^\circ\text{C}$

Notes:

1. Enough heatsink must be considered in application.



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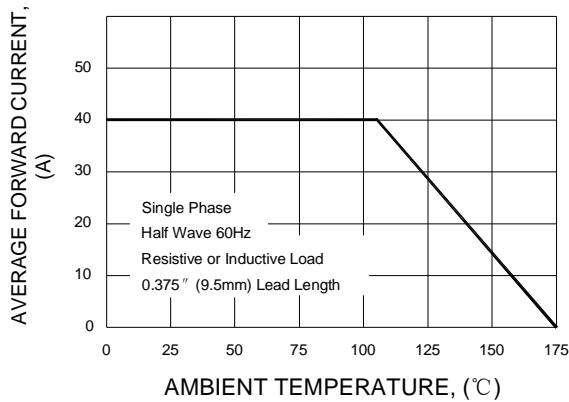
B502 THRU B504

VOLTAGE RANGE 200 to 400 Volts

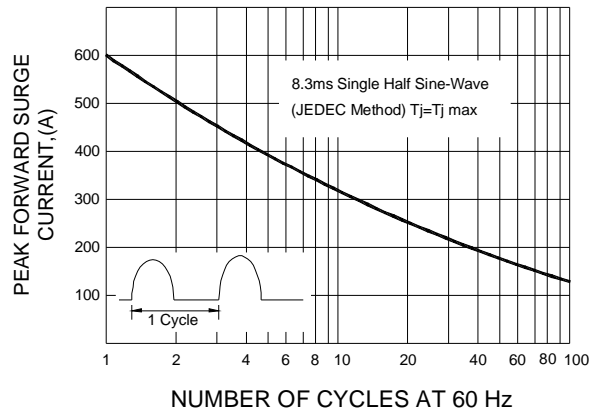
CURRENT 50.0 Amperes

RATINGS AND CHARACTERISTIC CURVES B502 THRU B504

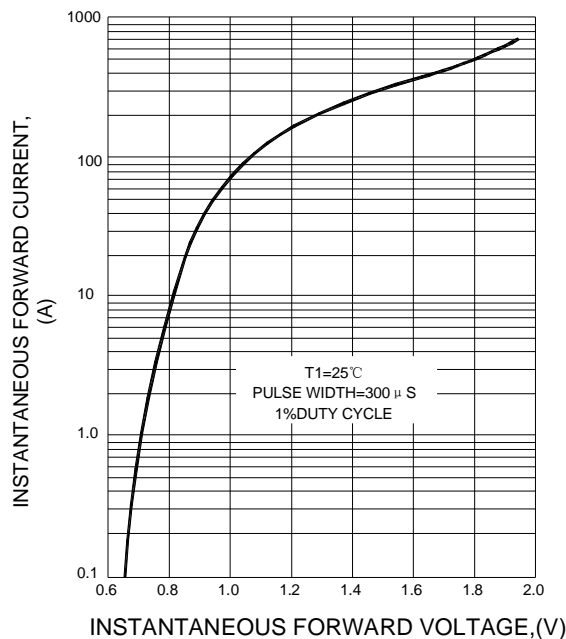
F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE



F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION

