



## AUTOMOTIVE RECTIFIER

**RAL2505 THRU RAL2510**

**VOLTAGE RANGE  
CURRENT**

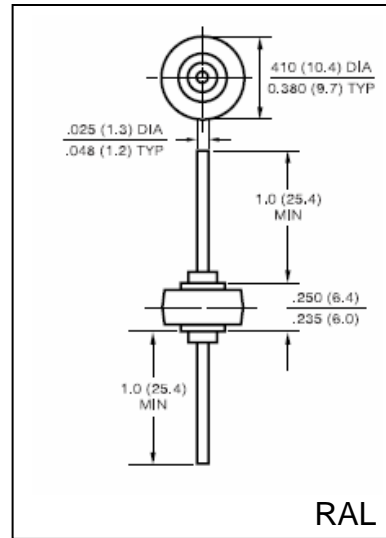
**50 to 1000 Volts  
25.0 Ampere**

**FEATURES**

- Low Leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity
- High temperature soldering guaranteed:  
260 /10 seconds, 0.375" (9.5mm) lead length

**MECHANICAL DATA**

- Case: transfer molded plastic
- Epoxy:UL94V-0 rate flame retardant
- Lead: Plated lead, solderable per MIL-STD-202E method 208C
- Polarity: color ring denotes cathode end
- Mounting Position: any
- Weight: 0.11 ounce, 3.0 gram



**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	RAL 2505	RAL 251	RAL 252	RAL 254	RAL 256	RAL 258	RAL 2510	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length at T <sub>A</sub> = 60°C	I <sub>(AV)</sub>	25.0							Amps
Peak Forward Surge Current	I <sub>FSM</sub>	500							Amps
8.3mS single half sine wave superimposed on rated load (JEDEC method)									
Maximum Instantaneous Forward Voltage @ 25.0A	V <sub>F</sub>	1.0							Volts
Maximum DC Reverse Current at Rated T <sub>A</sub> = 25 °C	I <sub>R</sub>	5.0							μA
DC Blocking Voltage per element T <sub>A</sub> = 100 °C		250							
Typical Thermal Resistance	R <sub>θJC</sub>	1.0							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	(-65 to +175)							°C
Storage Temperature Range	T <sub>STG</sub>	(-65 to +175)							°C



**RATINGS AND CHARACTERISTIC CURVES RAL2505 THRU RAL2510**

FIG.1-TYPICAL FORWARD CURRENT

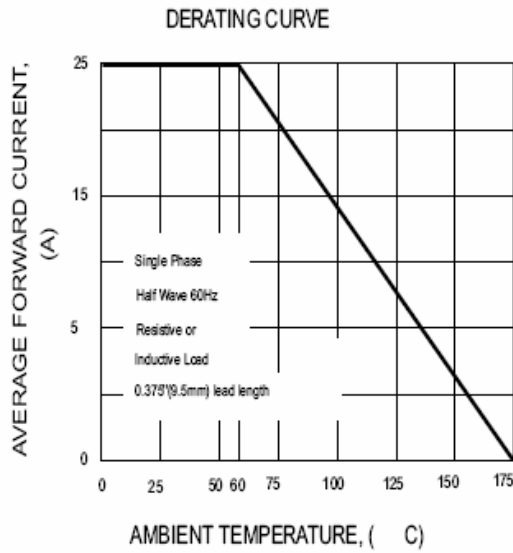


FIG.2-MAXIMUM NON-REPETITIVE PEAK

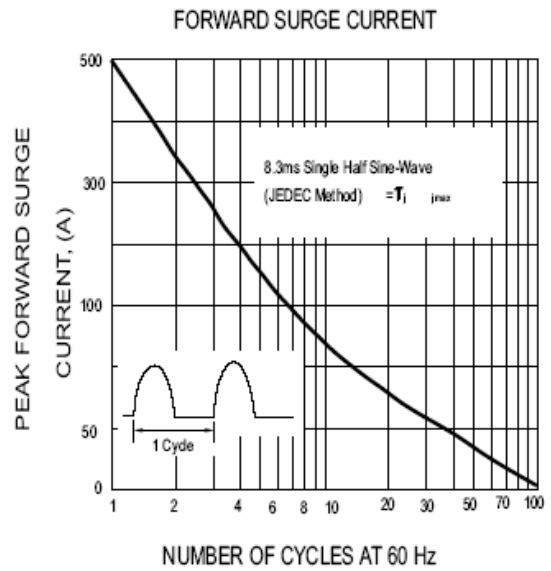


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

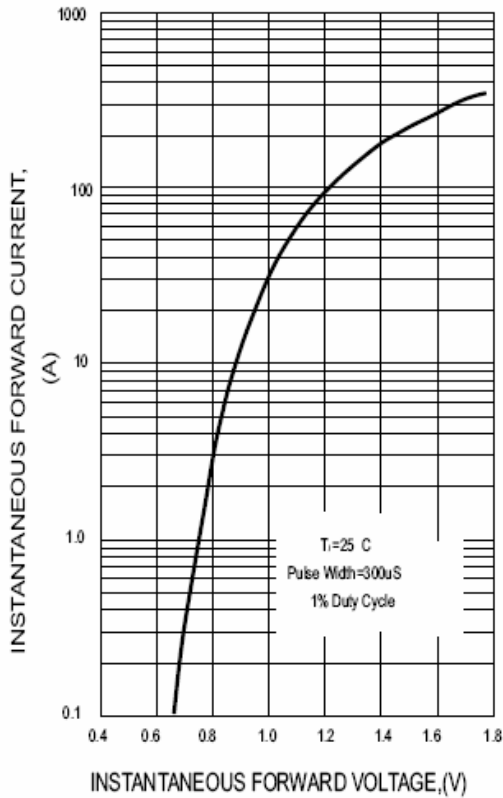


FIG.4. FORWARD POWER DISSIPATION

