



MR5000L - MR5010L

PRV : 50 - 1000 Volts
Io : 50 Amperes

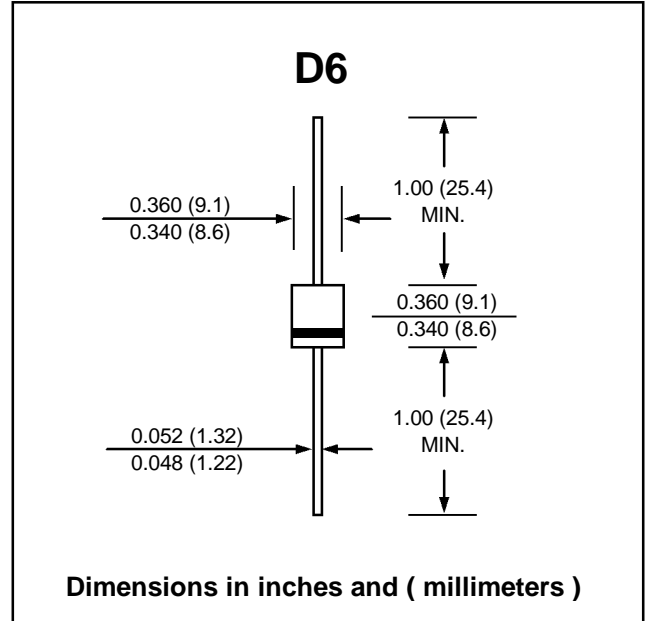
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 2.049 grams

AUTOMOTIVE RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATING	SYMBOL	MR	MR	MR	MR	MR	MR	MR	UNIT
		5000L	5001L	5002L	5004L	5006L	5008L	5010L	
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 Rectified Forward Current T _c = 150°C	I _{F(AV)}	50							A
Maximum Peak Forward Surge Current Single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	500							A
Maximum Forward Voltage at I _F = 50 A	V _F	1.1							V
Maximum DC Reverse Current Ta = 25 °C at rated DC Blocking Voltage Ta = 100 °C	I _R	5.0							µA
	I _{R(H)}	1.0							mA
Thermal Resistance (Note 1)	R _{θJC}	0.8							°C/W
Junction Temperature Range	T _J	- 65 to + 175							°C
Storage Temperature Range	T _{STG}	- 65 to + 175							°C

Note : (1) Thermal resistance from junction to case.

RATING AND CHARACTERISTIC CURVES (MR5000L - MR5010L)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

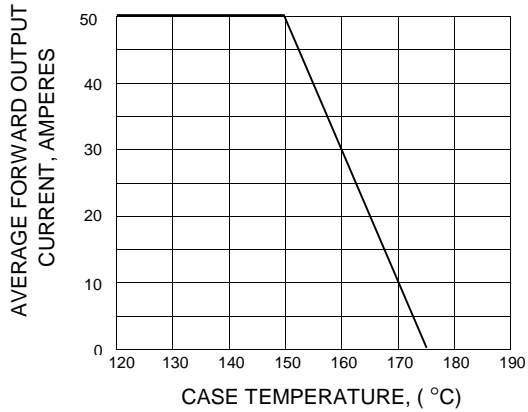


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

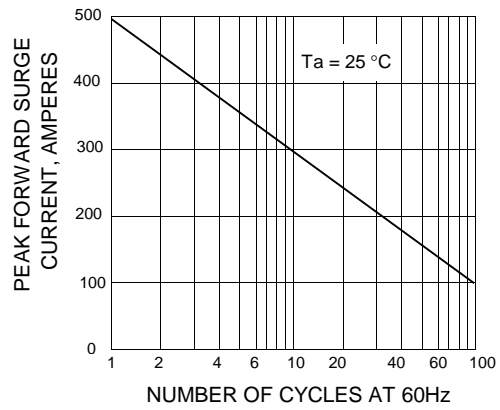


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

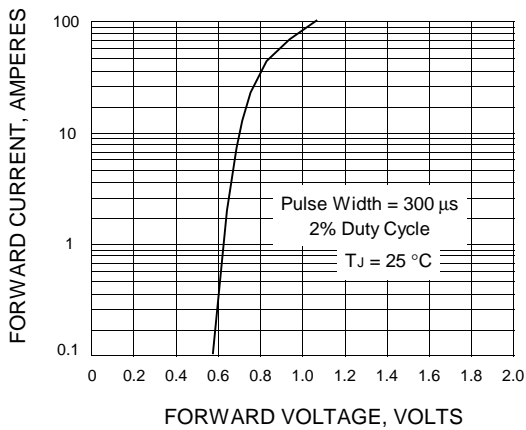


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

