RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

MP3505 THRU MP3510

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 35 Amperes

FEATURES

* Superior thermal desing
* 300 amperes surge rating
* 1/4" universal faston terminal
* Hole thru for # 10 screw

MECHANICAL DATA

* UL listed the recognized component directory, file #E94233
* Epoxy: Device has UL flammability classification 94V-O



MP-35



MP-35W

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

MAXIMUM RATINGS (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	MP3505	MP351	MP352	MP354	MP356	MP358	MP3510	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at Tc = 55°C	I_O	35.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	400							Amps
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 175							°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	MP3505	MP351	MP352	MP354	MP356	MP358	MP3510	UNITS
Maximum Forward Voltage Drop per element at 17.5A DC		V_F	1.1							Volts
Maximum Reverse Current at Rated	@T_A = 25°C	I_R	10							uAmps
DC Blocking Voltage per element	@T_C = 100°C		0.5							mAmps

NOTE: Suffix "W" for wire type

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RATING AND CHARACTERISTIC CURVES (MP3505 THRU MP3510)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

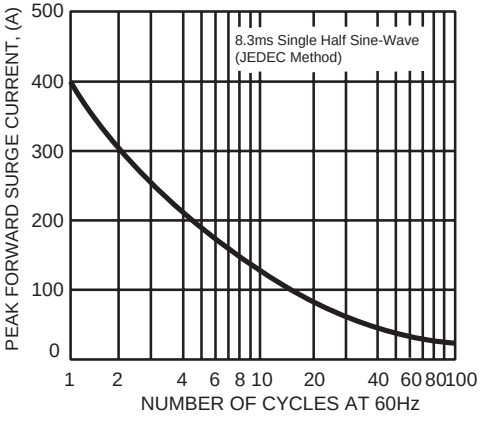


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

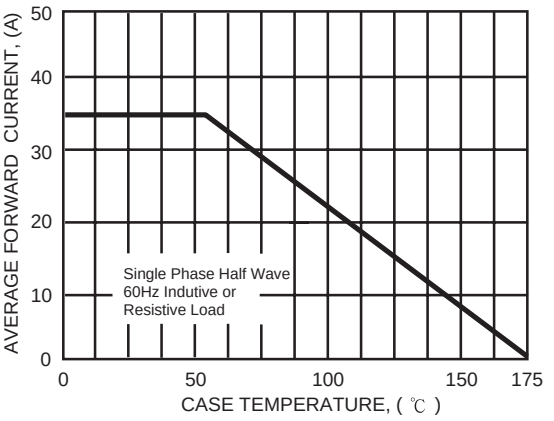


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

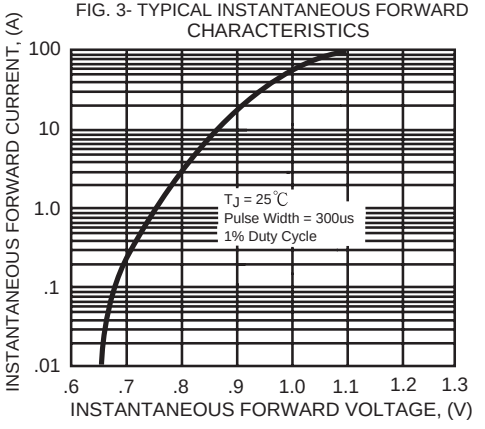
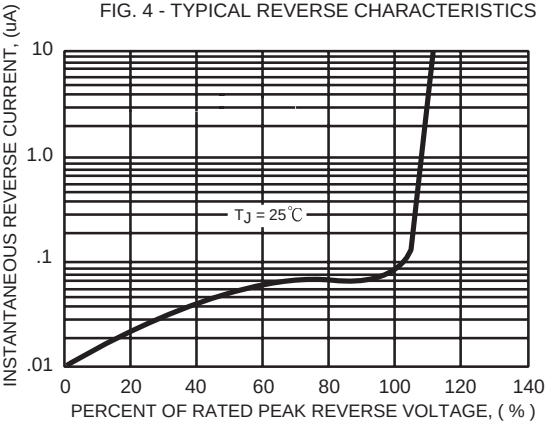
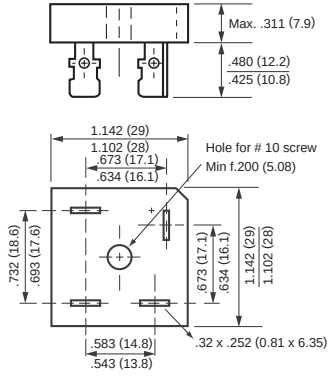
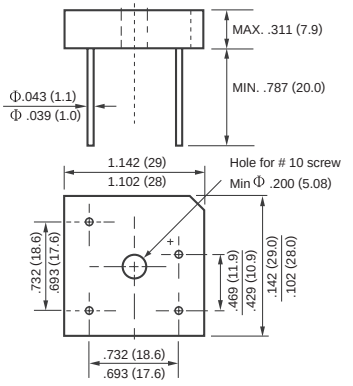


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS





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MP-35W