

MR850 THRU MR856

SOFT RECOVERU, FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE - 50 to 600 Volts CURRENT - 3.0 Amperes

DO-201AD

FEATURES

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Void-free molded plastic package
- 3.0 ampere operation at $T_A=50$ with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency

MECHANICAL DATA

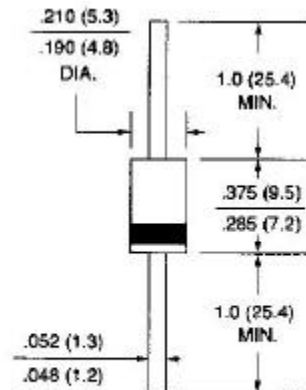
Case: JEDEC DO-201AD molded plastic

Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color Band denotes end

Mounting Position: Any

Weight: 0.04 ounce, 1.1 gram



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	MR850	MR851	MR852	MR854	MR856	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	480	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_A=50$	$I_{(AV)}$	3.0					Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load at $T_A=25$	I_{FSM}	100.0					Amps
Maximum Repetitive Peak Forward Surge(Note1)	I_{FRM}	10.0					Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.25					Volts
Maximum DC Reverse Current $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	I_R	10.0 500.0					A A
Maximum Reverse Recovery Time(Note 3) $T_J=25$	T_{RR}	150					ns
Typical Junction capacitance (Note 2)	C_J	60					pF
Typical Thermal Resistance (Note 4)	R JA	15.0					/W
Operating Junction Temperature Range	T_J	-50 to +125					
Storage Temperature Range	T_{STG}	-50 to +150					

NOTES:

1. Repetitive Peak Forward Surge Current at $f < 15\text{KHz}$
2. Measured at 1 MHz and applied reverse voltage of 4.0 Volts
3. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$
4. Thermal Resistance From Junction to Ambient at 0.375"(9.5mm) lead length with both leads to heat sink

RATING AND CHARACTERISTIC CURVES

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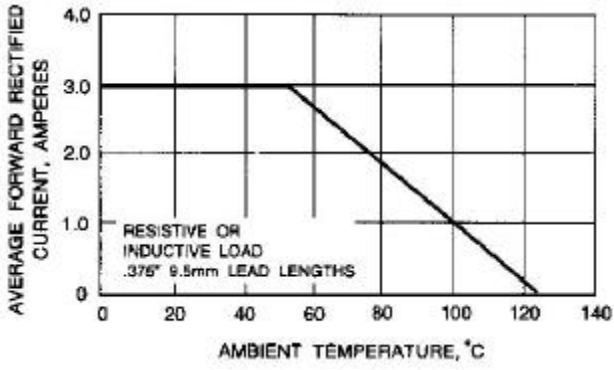


Fig. 1-FORWARD CURRENT DERATING CURVE

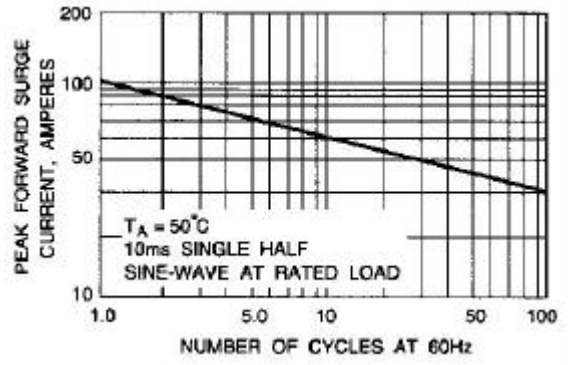


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

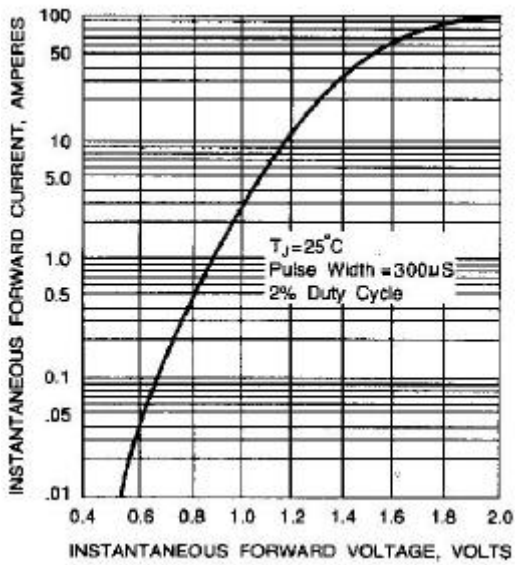


Fig. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

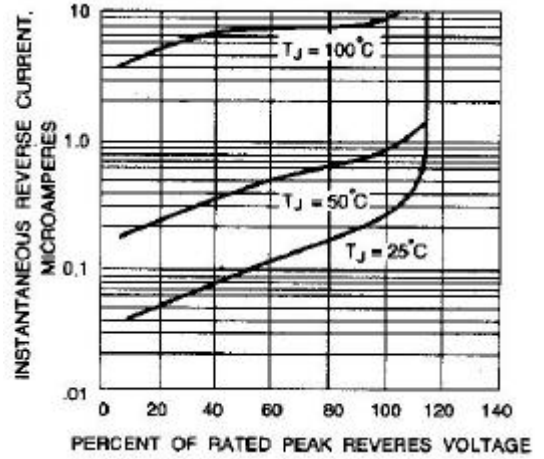


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

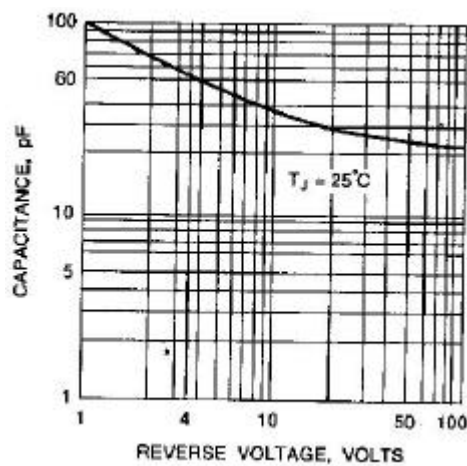


Fig. 5-TYPICAL JUNCTION CAPACITANCE