



ELECTRONICS, INC.

44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748-5089
<http://www.nteinc.com>

GI850/MR850 thru GI858/MR858 3 Amp Fast Switching Plastic Rectifier DO-201AD Type Package

Features:

- High Forward Surge Capability
- Fast Switching for High Efficiency
- High Forward Current Operation

Absolute Maximum Ratings: ($T_A = +25^{\circ}\text{C}$ unless otherwise specified)

Maximum Repetitive Peak Reverse and Blocking Voltage, V_{RRM} , V_{DC}

GI850/MR850	50V
GI851/MR851	100V
GI852/MR852	200V
GI854/MR854	400V
GI856/MR856	600V
GI858/MR858	800V

Maximum RMS Voltage, V_{RMS}

GI850/MR850	35V
GI851/MR851	70V
GI852/MR852	140V
GI854/MR854	280V
GI856/MR856	420V
GI858/MR858	510V

Maximum Non-Repetitive Peak Reverse Voltage, V_{RSM}

GI850/MR850	75V
GI851/MR851	150V
GI852/MR852	250V
GI854/MR854	450V
GI856/MR856	650V
GI858/MR858	880V

Maximum Average Forward Rectified Current, $I_{F(AV)}$

$T_A = +90^{\circ}\text{C}$, .375" (9.5mm) Lead Length	3A
---	----

Peak Forward Surge Current, I_{FSM}

8.3ms single half sine-wave superimposed on rated load	100A
--	------

Operating Junction Temperature Range, T_J -50° to $+150^{\circ}\text{C}$

Storage Temperature Range, T_{stg} -50° to $+150^{\circ}\text{C}$

Typical Thermal Resistance (Note 1)

Junction-to-Ambient, R_{thJA}	22°C/W
Junction-to-Lead, R_{thJL}	8.0°C/W

Note 1. Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length

Electrical Characteristics: ($T_A = +25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Instantaneous Forward Voltage	V_F	$I_F = 3\text{A}$	–	–	1.25	V
		$I_F = 9.4\text{A}, T_J = +175^{\circ}\text{C}$	–	–	1.1	V
DC Reverse Current All Devices	I_R	$T_A = +25^{\circ}\text{C}$	–	–	10	μA
GI850/MR850		$T_A = +100^{\circ}\text{C}$	–	–	150	μA
GI851/MR851					150	μA
GI852/MR852					200	μA
GI854/MR854					250	μA
GI856/MR856					300	μA
GI858/MR858					500	μA
Junction Capacitance	C_J	$V_R = 4\text{V}, f = 1\text{MHz}$	–	28	–	pF
Reverse Recovery Time	t_{rr}	$I_F = 1\text{A}, V_R = 30\text{V}, di/dt = 50\text{A}/\mu\text{s},$ $I_{rr} = 10\% I_{RM}$	–		200	ns
Reverse Recovery Current	$I_{RM(REC)}$	$I_F = 1\text{A}, V_R = 30\text{V}, di/dt = 50\text{A}/\mu\text{s},$ $I_{rr} = 10\% I_{RM}$	–		2	A

