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## 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°C	
Storage Temperature Range, $T_{stg}$ .....	
-50° to +150°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	$\mu\text{A}$	
GI850/MR850		$T_A = +100^\circ\text{C}$	$V_{DC} = 50\text{V}$	-	-	150	$\mu\text{A}$
GI851/MR851			$V_{DC} = 100\text{V}$	-	-	150	$\mu\text{A}$
GI852/MR852			$V_{DC} = 200\text{V}$	-	-	200	$\mu\text{A}$
GI854/MR854			$V_{DC} = 400\text{V}$	-	-	250	$\mu\text{A}$
GI856/MR856			$V_{DC} = 600\text{V}$	-	-	300	$\mu\text{A}$
GI858/MR858			$V_{DC} = 800\text{V}$	-	-	500	$\mu\text{A}$
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	

