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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	μA	
GI850/MR850		$T_A = +100^\circ\text{C}$	$V_{DC} = 50\text{V}$	-	-	150	μA
GI851/MR851			$V_{DC} = 100\text{V}$	-	-	150	μA
GI852/MR852			$V_{DC} = 200\text{V}$	-	-	200	μA
GI854/MR854			$V_{DC} = 400\text{V}$	-	-	250	μA
GI856/MR856			$V_{DC} = 600\text{V}$	-	-	300	μA
GI858/MR858			$V_{DC} = 800\text{V}$	-	-	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	

