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°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°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

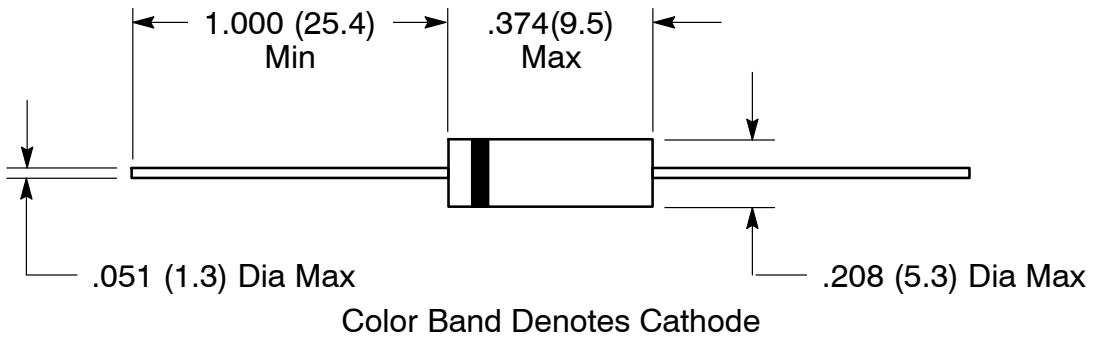
Storage Temperature Range, T_{stg} . . . . . –50° to +150°C

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°C unless otherwise specified)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Instantaneous Forward Voltage	V_F	I_F = 3A		–	–	1.25	V
		I_F = 9.4A, T_J = +175°C		–	–	1.1	V
DC Reverse Current All Devices	I_R	T_A = +25°C		–	–	10	µA
GI850/MR850		T_A = +100°C	V_{DC} = 50V	–	–	150	µA
GI851/MR851			V_{DC} = 100V	–	–	150	µA
GI852/MR852			V_{DC} = 200V	–	–	200	µA
GI854/MR854			V_{DC} = 400V	–	–	250	µA
GI856/MR856			V_{DC} = 600V	–	–	300	µA
GI858/MR858			V_{DC} = 800V	–	–	500	µA
Junction Capacitance	C_J	V_R = 4V, f = 1MHz		–	28	–	pF
Reverse Recovery Time	t_{rr}	I_F = 1A, V_R = 30V, di/dt = 50A/µs, I_{rr} = 10% I_{RM}		–		200	ns
Reverse Recovery Current	$I_{RM(REC)}$	I_F = 1A, V_R = 30V, di/dt = 50A/µs, I_{rr} = 10% I_{RM}		–		2	A



Color Band Denotes Cathode