

**MSD6102**

**CASE 29-02, STYLE 3  
TO-92 (TO-226AA)**

**DUAL DIODE  
COMMON CATHODE**

**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	70	Vdc
Recurrent Peak Forward Current	$I_F$	200	mA
Peak Forward Surge Current (Pulse Width = 10 $\mu$ s)	$I_{FM}(\text{surge})$	500	mA
Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	$P_D(1)$	625 5.0	mW mW/°C
Operating and Storage Junction Temperature Range	$T_J, T_{stg}(1)$	-55 to +135	°C

(1) Continuous package improvements have enhanced these guaranteed Maximum Ratings as follows:  $P_D = 1.0 \text{ W @ } T_C = 25^\circ\text{C}$ , Derate above 25°C — 8.0 mW/°C,  $T_J = -65 \text{ to } +150^\circ\text{C}$ ,  $\theta_{JC} = 125^\circ\text{C/W}$ .

**ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
Breakdown Voltage ( $I_{(BR)} = 100 \mu\text{Adc}$ )	$V_{(BR)}$	70	—	Vdc
Reverse Current ( $V_R = 50 \text{ Vdc}$ )	$I_R$	—	0.1	$\mu\text{Adc}$
Forward Voltage ( $I_F = 10 \text{ mAdc}$ )	$V_F$	—	1.0	Vdc
Capacitance ( $V_R = 0$ )	C	—	3.0	pF
Reverse Recovery Time ( $I_F = I_R = 10 \text{ mAdc}$ , $V_R = 5.0 \text{ Vdc}$ , $i_{rr} = 1.0 \text{ mAdc}$ )	$t_{rr}$	—	100	ns