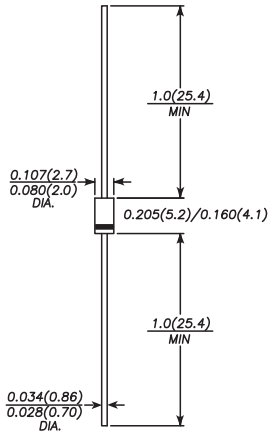
CL08-08

GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 8000 Volts Forward Current - 0.35 Ampere

DO-41



Dimensions in inches and (millimeters)

FEATURES

- Bare Leads: Pb-free (RoHS Compliant)
- V_{RM} ---------- 8 kV
- I_{RSM} ---------- 150 mA
- $I_{F(AV)}$ ---------- 350 mA
- V_F ---------- 14.0 V max.
- t_{rr} ---------- 0.15 μs max.
  ($I_F = I_{RP}$ = 100 mA, 90% Recovery Point)

Application

- High Voltage Control Circuits
- Inverter for Microwave Oven

Absolute Maximum Ratings And Electrical Characteristics

Unless otherwise specified, T_A = 25 °C.

Parameter	Symbol	Conditions	Rating	Unit	Remarks
Peak Repetitive Reverse Voltage	V_{RM}		8	kV	
Average Forward Current	$I_{F(AV)}$	$T_L \leq 110$ °C(1)	350	mA	
Surge Forward Current	I_{FSM}	Half cycle sine wave, positive side, 10 ms, 1 shot	15	A	
Surge Reverse Current	I_{RSM}	Single pulse, pulse width 50 μs	150	mA	
Junction Temperature	T_J		120	°C	
Storage Temperature	T_{STG}		−40 to 130	°C	

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage Drop	V_F	I_F = 350 mA	—	11.0	14.0	V
Reverse Leakage Current	I_R	$V_R = V_{RM}$	—	—	10	μA
Reverse Breakdown Voltage	V_Z	I_R = 100 μA	8.5	9.8	—	kV
Reverse Recovery Time	t_{rr}	$I_F = I_{RP}$ = 100 mA, T_J = 25 °C, 90% recovery point	—	0.07	0.15	μs

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RATINGS AND CHARACTERISTIC CURVES CL08-08

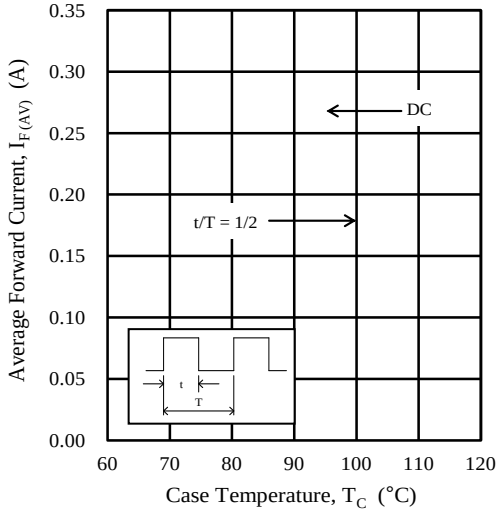

Figure 1. T_C vs. $I_{F(AV)}$ Typical Characteristics[2]
(T_J = 120 °C, V_R = 0 V, $R_{th\ (J-c)}$ = 13.0 °C/W)

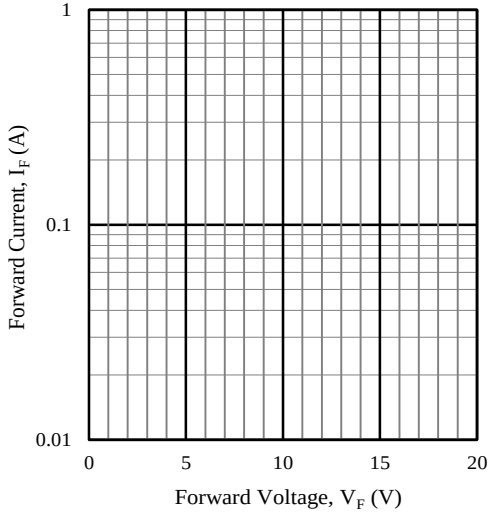

Figure 2. V_F vs. I_F Typical Characteristics (T_J = 25 °C)

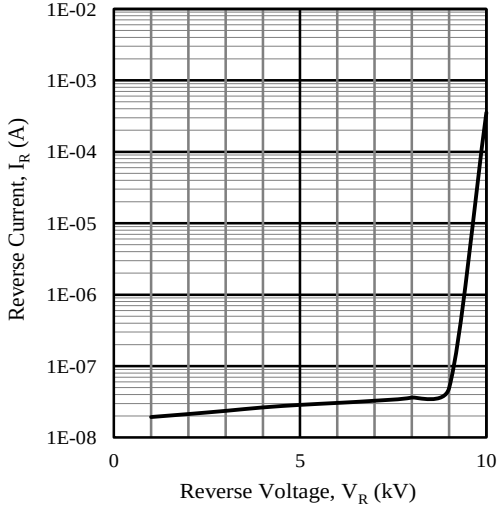

Figure 3. V_R vs. I_R Typical Characteristics (T_J = 25 °C)