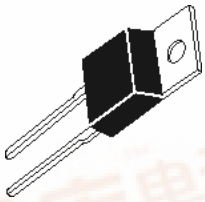
Semiconductor

Data Sheet

8.0 Amp ULTRAFAST PLASTIC RECTIFIERS

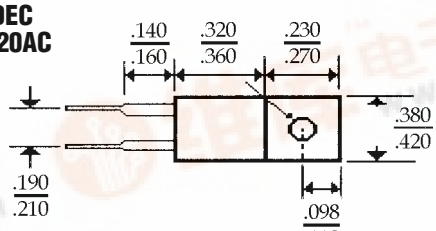
UF08-00 . . . -10 Series

Description



Mechanical Dimensions

JEDEC TO-220AC



(Dimensions in inches)

Features

- LOW FORWARD VOLTAGE
- HIGH SURGE CAPABILITY
- ULTRAFAST RECOVERY TIME
- MEETS UL SPECIFICATION 94V-0

	UF08-00 . . . -10 Series												Units
Maximum Ratings	-00	-01	-01A	-02	-03	-04	-05	-06	-07	-08	-09	-10	
Peak Repetitive Reverse Voltage...V_{RRM}	50	100	150	200	300	400	500	600	700	800	900	1000	Volts
Working Peak Reverse Voltage...V_{RWM}	50	100	150	200	300	400	500	600	700	800	900	1000	Volts
DC Blocking Voltage...V_{DC}	50	100	150	200	300	400	500	600	700	800	900	1000	Volts
Average Forward Rectified Current...$I_{F(av)}$ T_C = 150°C @ Rated V_{DC}	8.0												Amps
Repetitive Peak Forward Surge Current...I_{FM} @ Rated V_{DC}, Square Wave, 20 kHz, T_C = 150°C	16												Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} @ Rated Load Cond., ½ Wave, Single Phase, 60Hz	100												Amps
Operating & Storage Temperature Range...T_J, T_{STRG}	-65 to 150												°C
Electrical Characteristics													
Maximum Forward Voltage...V_F @ I_F = 8 Amps, PW = 300µs T_C = 150°C	< ... 0.895 .. >					< ..... 1.0 ... >			< ..... 1.2 ... >			< ..... 1.5 .....>	Volts
T_C = 25°C	< ... 0.975 .. >					< ..... 1.3 ... >			< ..... 1.5 ... >			< ..... 1.8 .....>	Volts
Maximum DC Reverse Current...I_R @ Rated DC Blocking Voltage T_C =150°C	< .... 250 ... >					< ..... 500 ... >			< ..... 500 ... >			< ..... 500 .....>	µAmps
T_C = 25°C	< .... 5.0 ... >					< ..... 10 ... >			< ..... 10 ... >			< ..... 25 .....>	µAmps
Maximum Thermal Resistance...$R_{\theta JC}$	< .... 3.0 ... >					< ..... 2.0 ..... >							°C / W
Maximum Reverse Recovery Time...t_{RR} I_F = 1.0 Amp, di/dt = 50 Amps/µs	< .... 35 ... >					< ..... 60 ... >			< ..... 60 ... >			< ..... 100 .....>	ns
I_F = 0.5 Amps, I_R = 1.0 Amps, I_{RR} = 0.25 Amps	< .... 25 ... >					< ..... 50 ... >			< ..... 50 ... >			< ..... 75 .....>	ns

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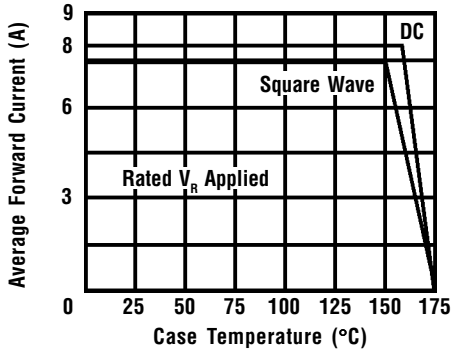
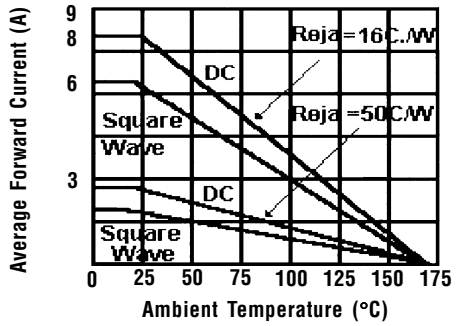
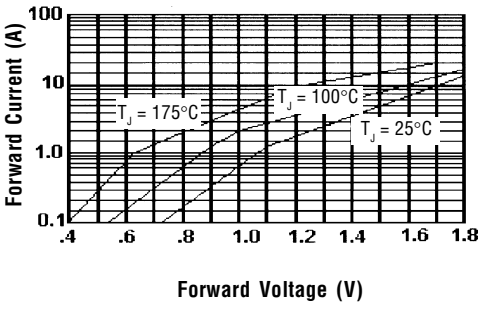
Forward Current Derating Curve



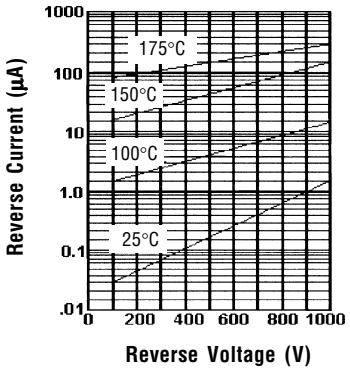
Forward Current Derating Curve

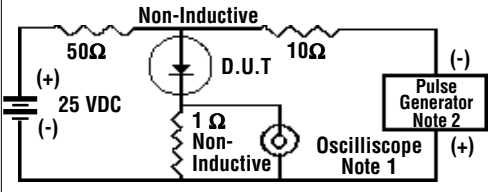


Typical Instantaneous Forward Characteristics



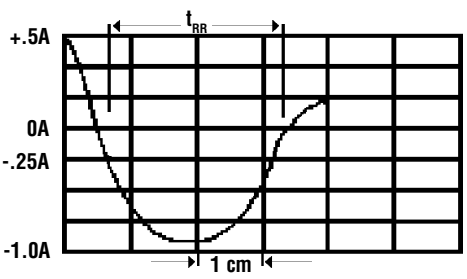
Typical Reverse Characteristics





Notes: 1. Rise Time = 7 ns Max.
Impedance = 1 megohm, 22 pF
2. Rise Time = 10 ns Max.
Source Impedance = 50 Ohms

Reverse Recovery Characteristics



Time Base Set @ 50/100ns/cm

Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 Hz Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.