

Hyperfast Recovery Rectifier Planar FRED



ITO-220AC

Primary Characteristics		
I_F	8	A
V_{RRM}	600	V
I_{FSM}	80	A
V_F	1.7	V
T_J max	175	°C

Features
• Low forward voltage drop • High current capability • High reliability • High surge current capability • High speed switching

Mechanical Data
• Case: ITO-220AC • Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 • Terminals: Lead free Plating (Tin Finish) Solderable per MIL-STD-202, Method 208 • Polarity: Cathode Band • Weight: 1.57 grams (approximate)

Ordering Information			
Part No.	Remark	Package	Packing
PFD08G06FS	General	TO-220AC	50 & 2000 / Tube & Box
PFD08G06FS-H	Halogen Free		

Maximum Ratings (TA=25°C unless otherwise noted)			
PARAMETER	SYMBOL	PFD08G06FS	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forward rectified current	I_F	8	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80	A
Maximum Instantaneous Forward Voltage IF=2A @ 25°C IF=8A @ 25°C	V_F	1.1 Typ. 1.7 Max.	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=125°C	I_R	2 50	uA
Typical Junction Capacitance(NOTE1)	C_j	30	pF
Maximum Reverse Recovery Time(NOTE2)	T_{rr}	22 Typ. 35 Max.	ns
Typical Thermal Resistance	$R_{\theta JC}$	3	°C/W
Operating Temperature Range	T_J	-55 to +175	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C
Marking Code		PFD08G06FS	

NOTES:

- 1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC
- 2.Measured with IF=0.5A, IR=1A, IRR=0.25A

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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

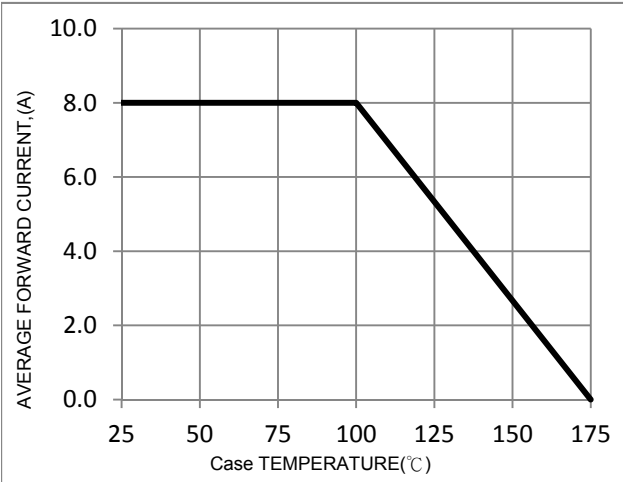


FIG. 2-Typical Forward Characteristics

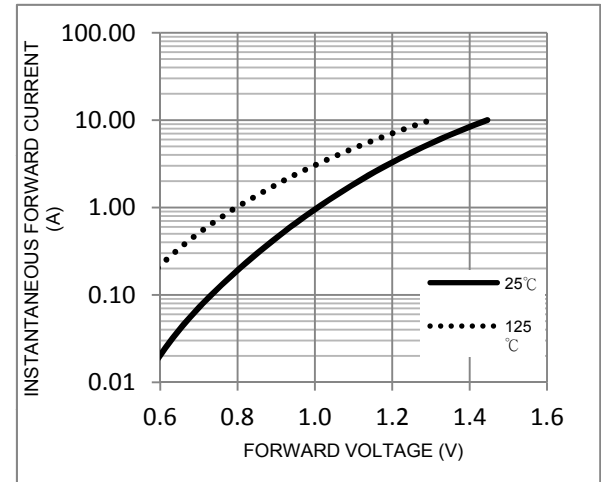


FIG. 3-Maximum Non-Repetitive Forward Surge Current

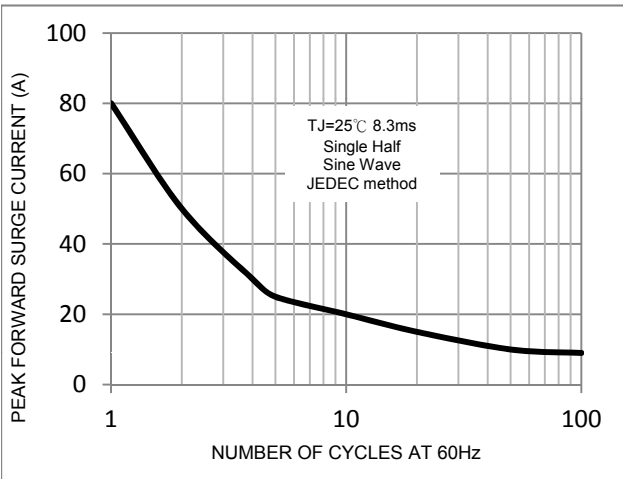


FIG. 4-Typical Reverse Characteristics

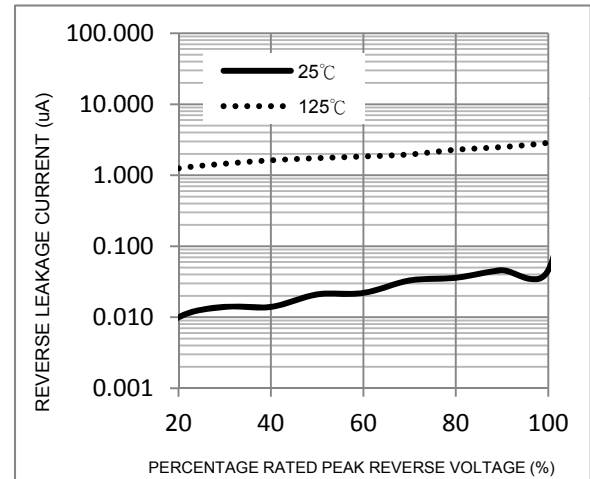


FIG. 5-Typical Junction Capacitance

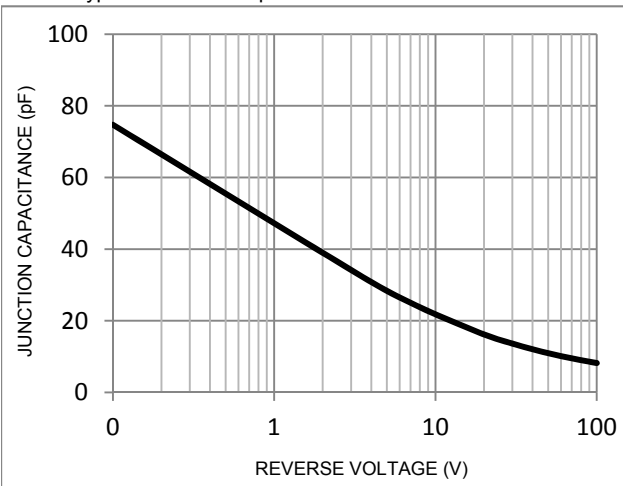
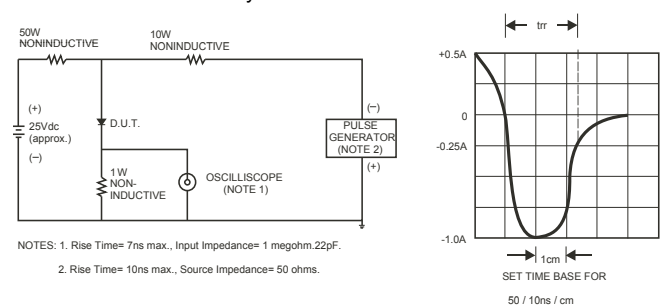


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit





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Dimensions in inches and (millimeters)

The diagram shows a 5-pin LED package with the following markings and their meanings:

- Logo Marking**: A circular logo with a stylized 'G' and an arrow.
- Date Code Marking**: A circle containing the date code 'YWWH'.
 - Y : Last digit of year (4 for 2014)
 - W : Week Code (01-52)
 - H : Green Compound
- Product Type Marking Code**: The code 'XXX'.
- Cathode Band**: A band on the cathode pin.