

# FE5B

**SINTERED GLASS JUNCTION  
SUPERFAST AVALANCHE RECTIFIER**  
VOLTAGE: 100V                      CURRENT: 5.0A

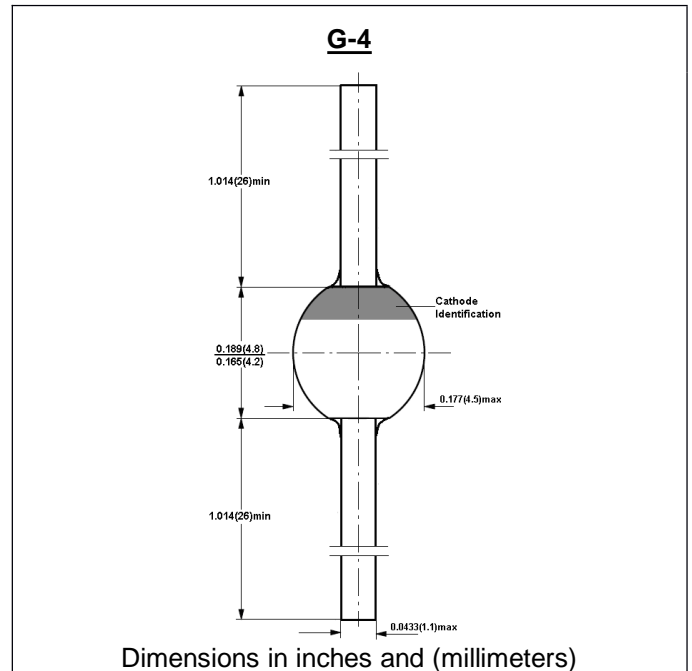


## FEATURE

High temperature metallurgically bonded construction  
Glass passivated cavity-free  
Super fast recovery time for high efficiency  
Low forward voltage, high current capability  
Low leakage current  
High surge current capability

## MECHANICAL DATA

Case: G-4 sintered glass case  
Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Polarity: color band denotes cathode end  
Mounting position: any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

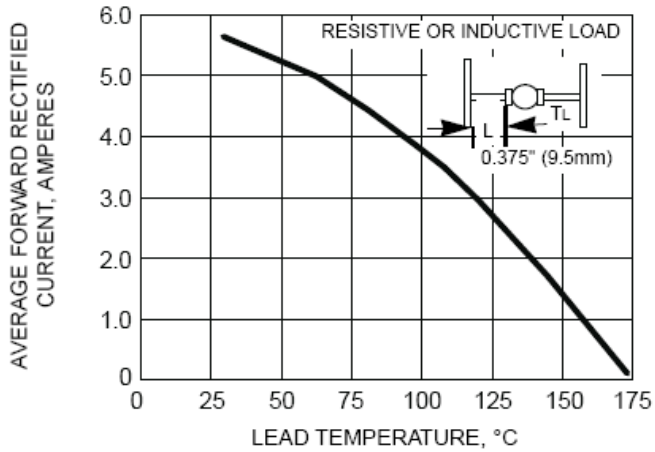
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	FE5B	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	V
Maximum RMS Voltage	$V_{RMS}$	70	V
Maximum DC blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current 3/8" lead length at $T_I=55^\circ C$	$I_{FAV}$	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	135	A
Maximum Forward Voltage at rated Forward Current and 25°C	$V_F$	0.95	V
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$	$T_a=25^\circ C$ 5.0	$\mu A$
		$T_a=100^\circ C$ 50.0	
Maximum Reverse Recovery Time	(Note 1) $T_{rr}$	35	nS
Typical Junction Capacitance	(Note 2) $C_j$	100.0	pF
Typical Thermal Resistance	(Note 3) $R_{th(ja)}$	55.0	$^\circ C / W$
	(Note 4) $R_{th(jl)}$	20.0	
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-65 to +175	$^\circ C$

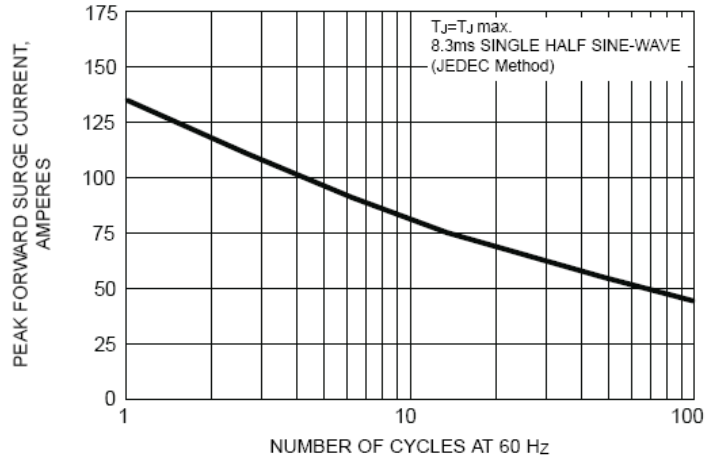
### Note:

1. Reverse Recovery Condition  $I_f=0.5A, I_r=1.0A, I_{rr}=0.25A$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 0.375"(9.5mm) lead length and mounted on P.C. B.
4. Thermal Resistance from Junction to Lead at 0.375"(9.5mm) lead length with both leads attached to heatsinks

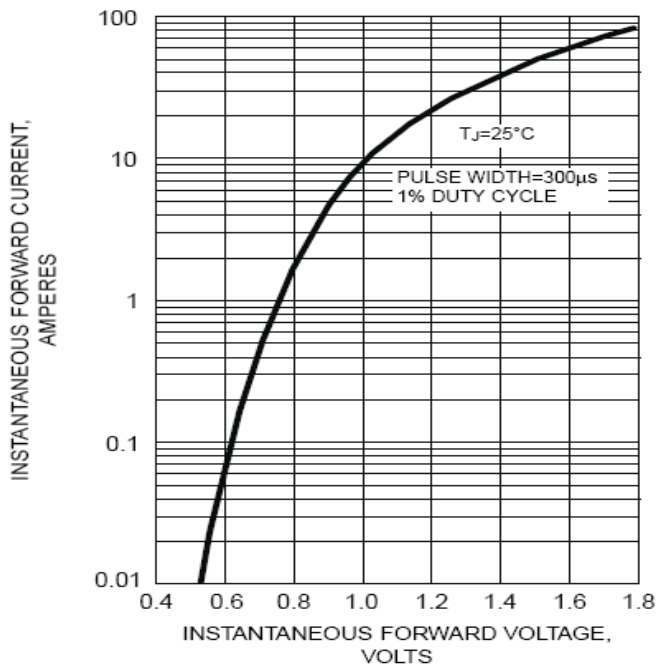
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**



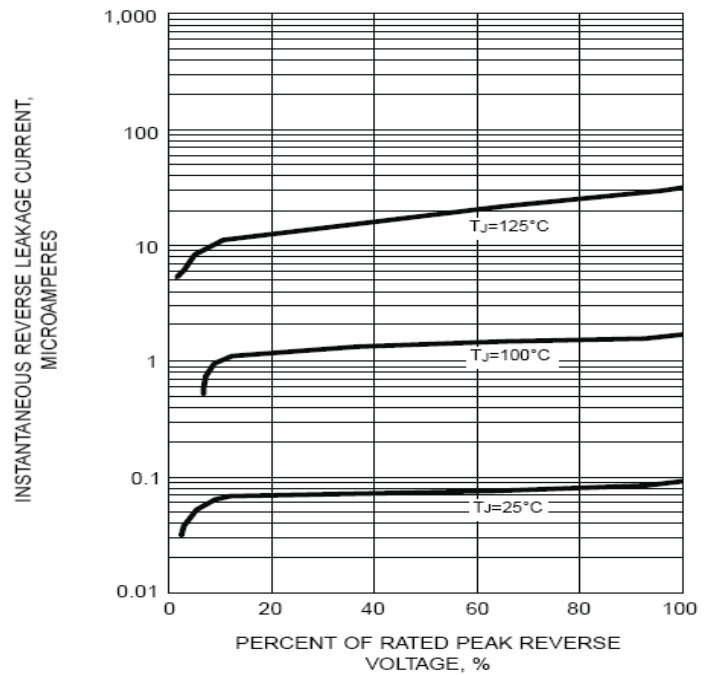
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

