

# FE1A ~ FE1G

# SUPER FAST RECTIFIERS

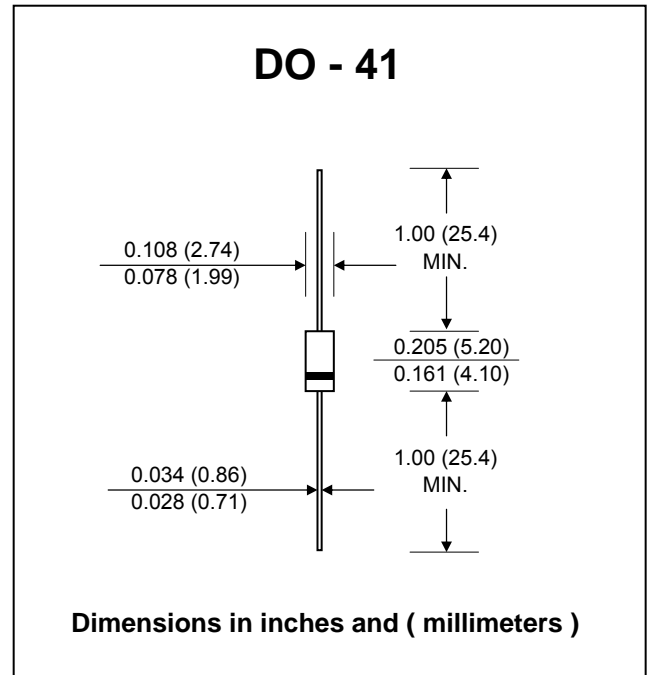
**PRV : 50 - 400 Volts**  
**Io : 1.0 Amperes**

**FEATURES :**

- \* Superfast recovery time for high efficiency
- \* High surge current capability
- \* High current capability
- \* Low leakage current
- \* Low forward voltage drop
- \* Pb / RoHS Free

**MECHANICAL DATA :**

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.335 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25 °C ambient temperature unless otherwise specified.

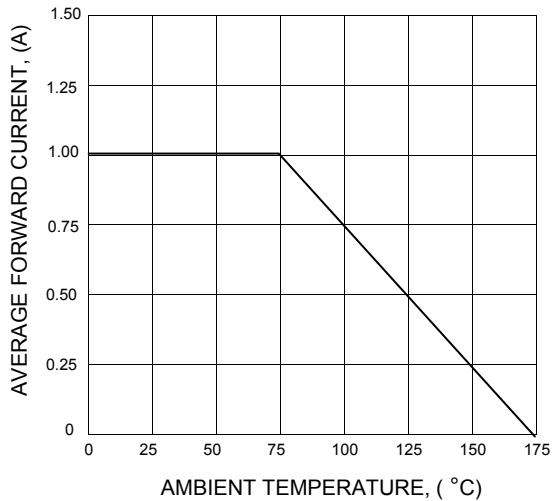
RATING	SYMBOL	FE1A	FE1B	FE1D	FE1F	FE1G	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	V
Maximum Reverse Voltage	$V_R$	50	100	200	300	400	V
Maximum Average Forward Current, R-load, $T_a = 75\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.0					A
Maximum Repetitive Peak Forward Current, $f > 15\text{ Hz}$ ( Note 1 )	$I_{FRM}$	10					A
Peak Forward Surge Current , 60 Hz half sine- wave	$I_{FSM}$	30					A
Maximum Forward Voltage at $I_F = 1\text{ A}$	$V_F$	0.95			1.25		V
Maximum Reverse Current at $V_R = V_{RRM}, T_J = 25\text{ }^\circ\text{C}$ at $V_R = V_{RRM}, T_J = 100\text{ }^\circ\text{C}$	$I_R$	2.0					$\mu\text{A}$
	$I_{R(H)}$	50					
Maximum Reverse Recovery Time ( Note 2 )	$T_{rr}$	50					ns
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	45					K/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	15					K/W
Operating Junction Temperature Range	$T_J$	- 50 to + 175					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 50 to + 175					$^\circ\text{C}$

**Notes :**

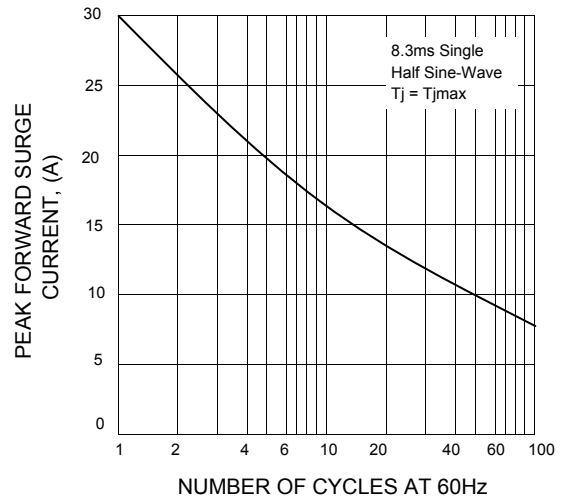
- (1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case.
- (2) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$ .

**RATING AND CHARACTERISTIC CURVES ( FE1A ~ FE1G )**

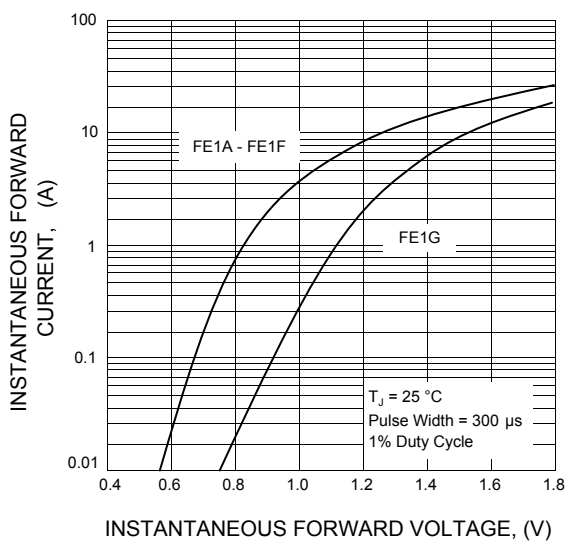
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

