

FE1A ~ FE1G

SUPER FAST RECTIFIERS

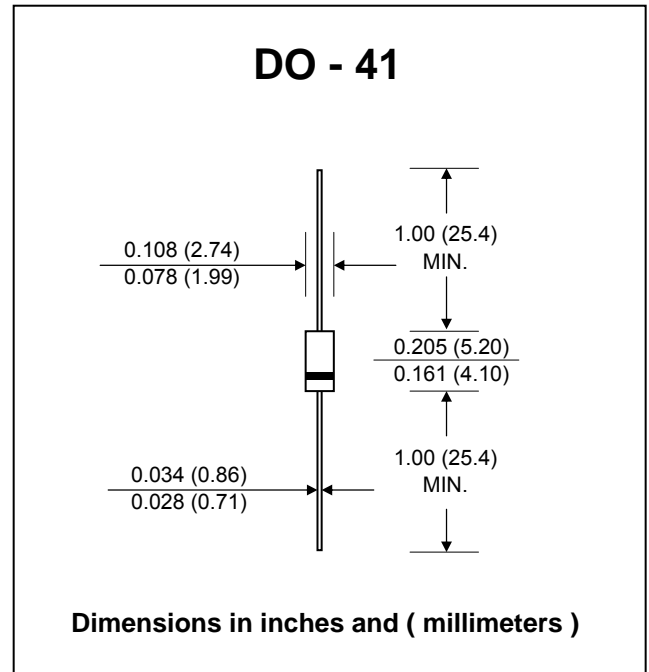
PRV : 50 - 400 Volts
Io : 1.0 Amperes

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					μA
	$I_{R(H)}$	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

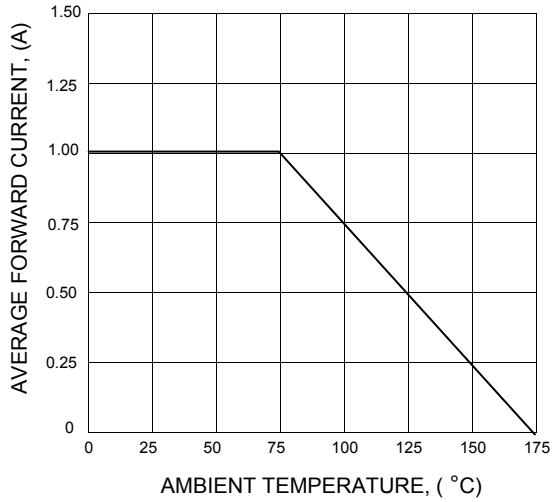


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

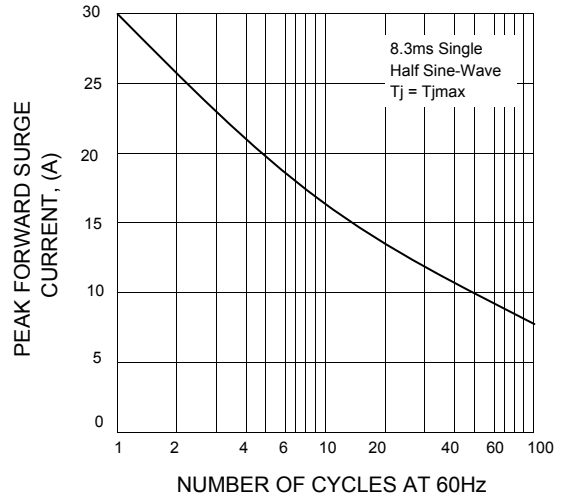


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

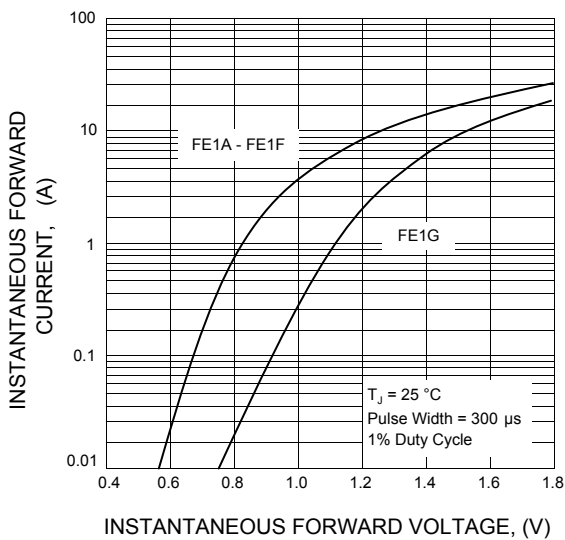


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

