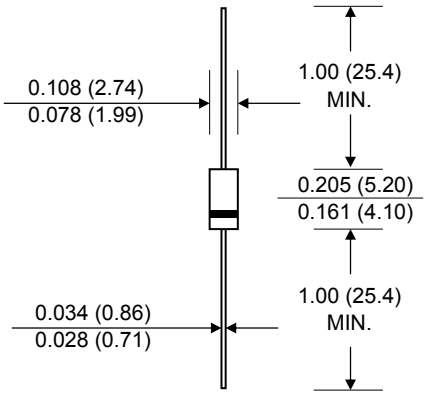
FE1A ~ FE1G

SUPER FAST RECTIFIERS

PRV : 50 - 400 Volts
Io : 1.0 Amperes

DO - 41



Dimensions in inches and (millimeters)

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, Ta = 75 °C	$I_{F(AV)}$	1.0					A
Maximum Repetitive Peak Forward Current, f > 15 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 A	V_F	0.95				1.25	V
Maximum Reverse Current at $V_R = V_{RRM}$, T_J = 25 °C	I_R	2.0					μA
at $V_R = V_{RRM}$, T_J = 100 °C	$I_{R(H)}$	50					μA
Maximum Reverse Recovery Time (Note 2)	Trr	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					°C
Storage Temperature Range	T_{STG}	- 50 to + 175					°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 A, I_R = 1.0 A, Irr = 0.25 A.

RATING AND CHARACTERISTIC CURVES (FE1A ~ FE1G)

FIG.1 - FORWARD CURRENT DERATING CURVE

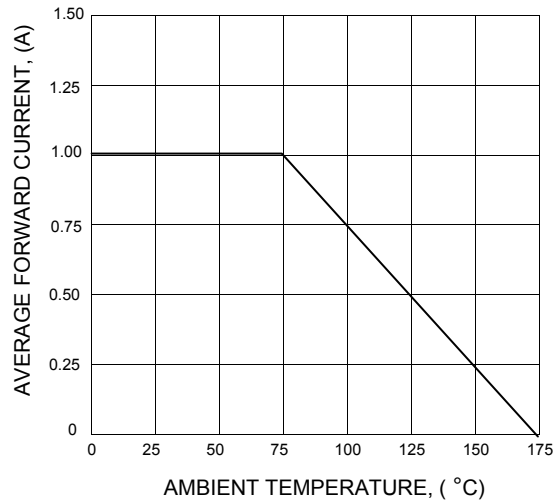


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

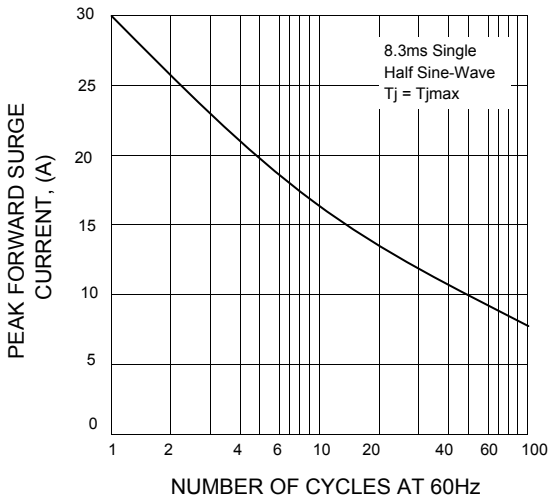


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

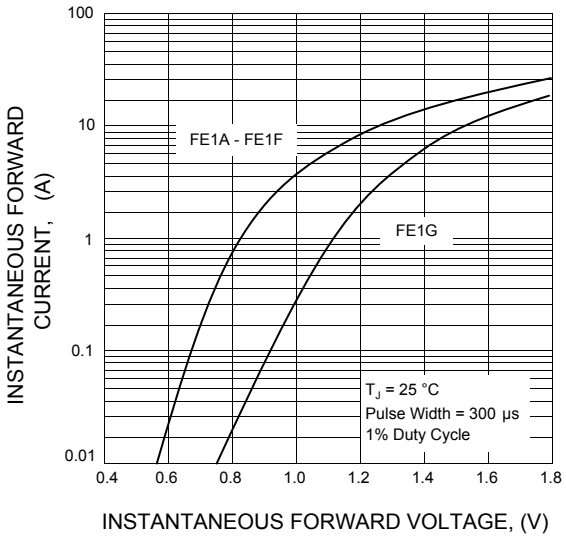


FIG.4 - TYPICAL REVERSE CHARACTERISTICS