

FE3A ~ FE3D

GLASS PASSIVATED JUNCTION SUPER FAST RECTIFIERS

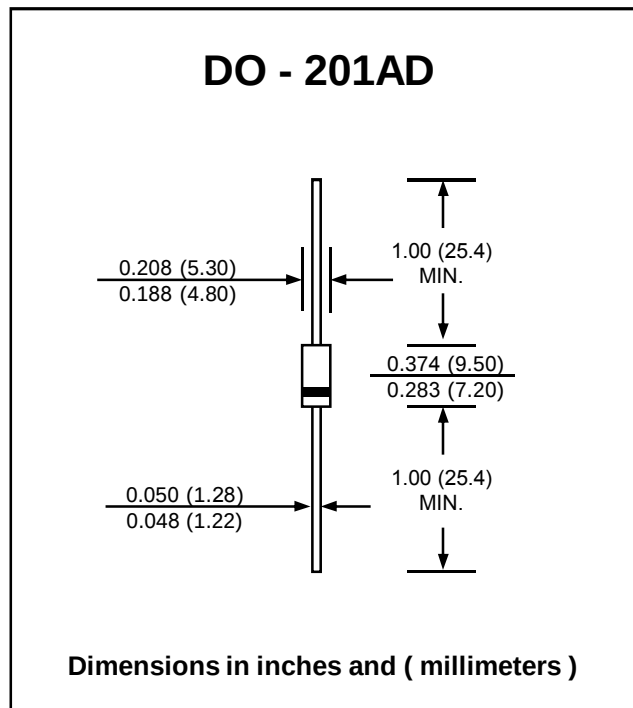
PRV : 50 - 200 Volts
Io : 3.0 Amperes

FEATURES :

- * Glass passivated junction chip
- * 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-201AD 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 : 1.16 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	FE3A	FE3B	FE3C	FE3D	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	V
Maximum Reverse Voltage	V_R	50	100	150	200	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 75\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	3.0				A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	125				A
Maximum instantaneous Forward Voltage at $I_F = 3\text{ A}$	V_F	0.95				V
Maximum Reverse Current $V_R = V_{RRM}, T_a = 25\text{ }^{\circ}\text{C}$	I_R	5.0				μA
at Rated Peak Reverse Voltage $V_R = V_{RRM}, T_a = 100\text{ }^{\circ}\text{C}$	$I_{R(H)}$	50				μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35				ns
Typical Thermal Resistance (Note 2, 3)	$R_{\theta JA}$	55				K/W
	$R_{\theta JL}$	20				K/W
Typical Junction Capacitance ($V_R = 4\text{ V}, f = 1\text{ MHz}$)	C_J	100				pF
Operating Junction Temperature Range	T_J	- 55 to + 175				$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 175				$^{\circ}\text{C}$

Notes :

(1) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$.

(2) Thermal resistance from junction to ambient and/or lead, 0.375 "(9.5mm) lead length mounted on P.C.B. with 0.5x0.5 (12x12mm)copper pads.

(3) Thermal resistance from junction to lead at 0.375 " (9.5 mm) lead length with both leads attached to heatsinks

RATING AND CHARACTERISTIC CURVES (FE3A ~ FE3D)

FIG.1 - FORWARD CURRENT DERATING CURVE

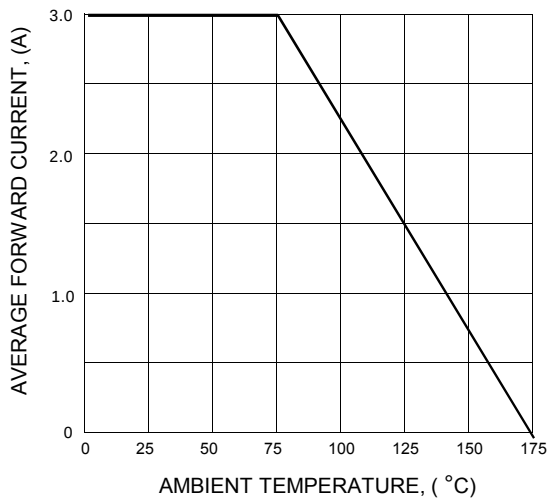


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

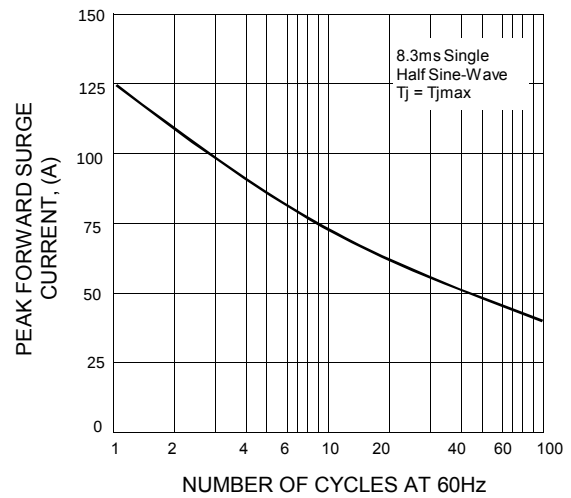


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

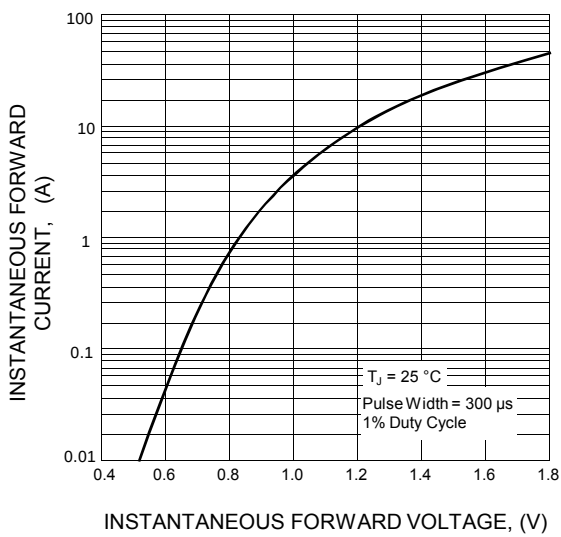


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

