

GLASS PASSIVATED SUPER FAST RECTIFIER
VOLTAGE RANGE 50 to 200 Volts CURRENT 3.0 Amperes

FEATURES

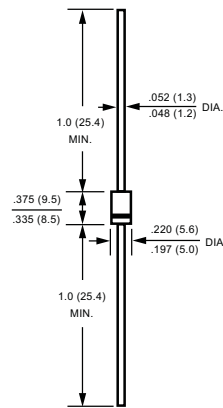
- * Glass passivated device
- * For surface mounted applications
- * Ultrafast recovery times dor high efficiency
- * Low forward voltage, low power loss
- * Low leakage current

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-O
- * Metallurgically bonded construction
- * Mounting position: Any



DO-201AD



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	USF31	USF32	USF33	USF34	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	Volts
Maximum Average Forward Rectified Current at $T_A = 55^\circ\text{C}$	I_O	3.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80				Amps
Current Squared Time	I^2t	26.56				A^2/Sec
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	20				$^\circ\text{C}/\text{W}$
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	8.0				$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 2)	C_J	45				pF
Operating Temperature Range	T_J	-55 to + 150				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150				$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	USF31	USF32	USF33	USF34	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC	V_F	.95				Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ\text{C}$	5.0				μA
	@ $T_A = 150^\circ\text{C}$	2.0				mA
Maximum Reverse Recovery Time (Note 4)	t_{rr}	20				nSec

- NOTES : 1. Thermal Resistance :At 9.5mm lead lengths, PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. " ROHS compliant".
4. Test Conditions: $I_F = 0.5\text{A}$, $I_R = -1.0\text{A}$, $I_{RR} = -0.25\text{A}$.

RATING AND CHARACTERISTICS CURVES (USF31 THRU USF34)

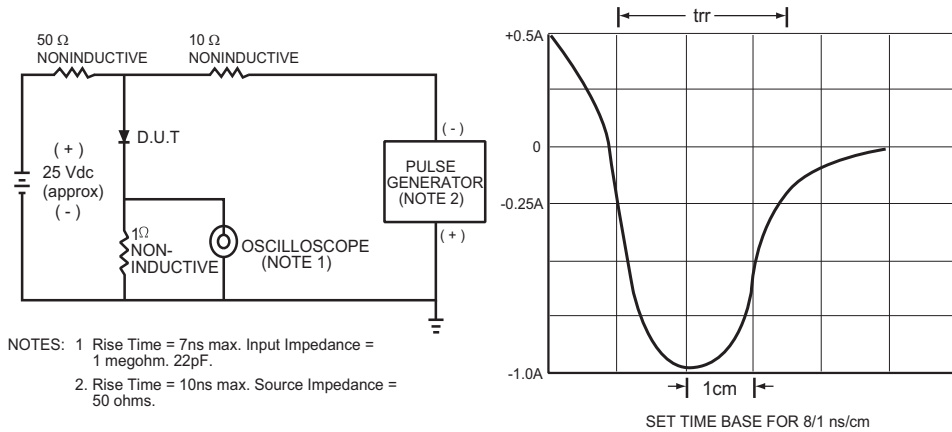


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

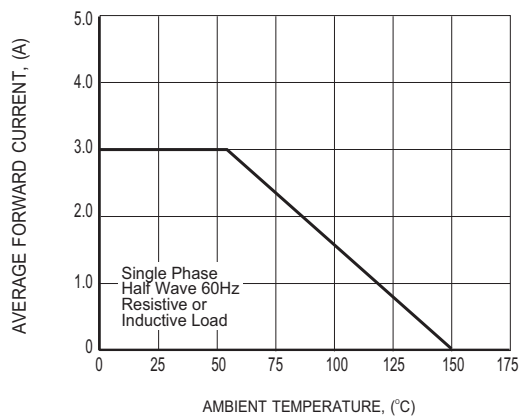


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

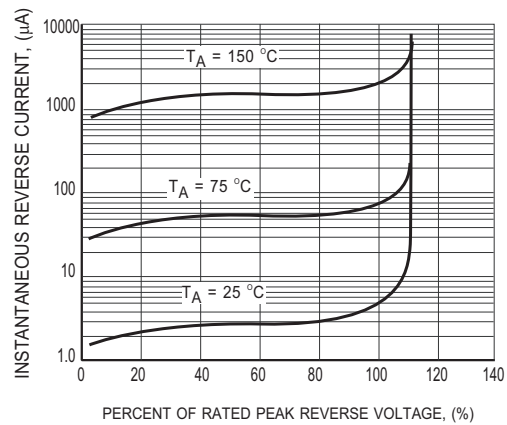


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (USF31 THRU USF34)

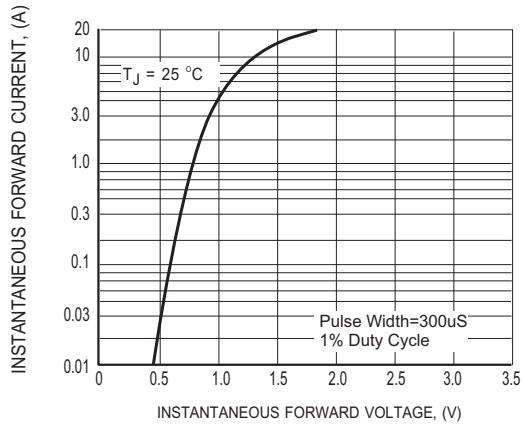


FIG.4 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

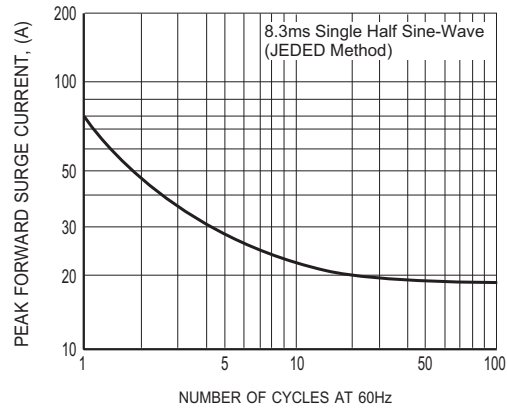


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

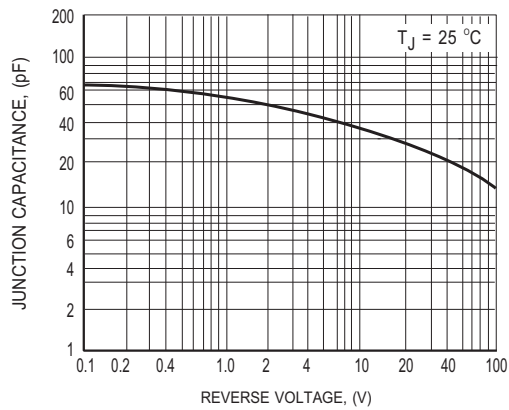
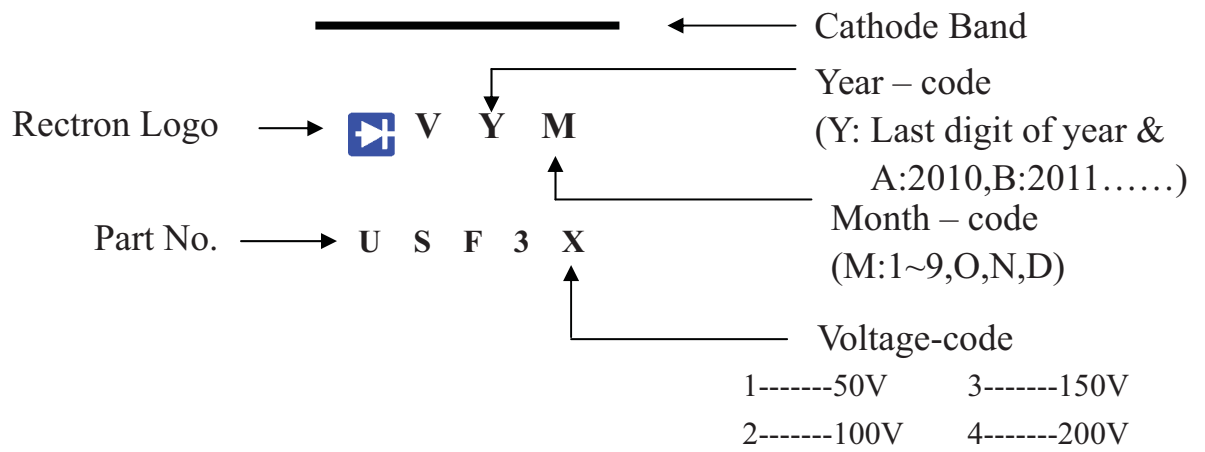


FIG.6 TYPICAL JUNCTION CAPACITANCE

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-201	-B	500	300*73*40	347*320*271	12,000	15.9

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-201	-T	1,200	1,200	5.0	52	330	355*350*335	4,800	9.10

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
DO-201	-F	600	9.5	52	255*73*100	400*268*225	6,000	9.9

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