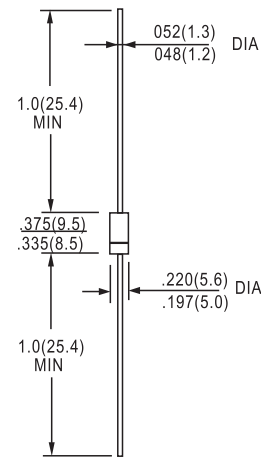


**TAYCHIPST****ULTRAFAST RECOVERY RECTIFIERS****UF300 THRU UF3010****50V-1000V 3.0A****FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228.
- Ultra Fast switching for high efficiency.
- In compliance with EU RoHS 2002/95/EC directives

Mechanical Data

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.0395 ounce, 1.122 gram

DO-27

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

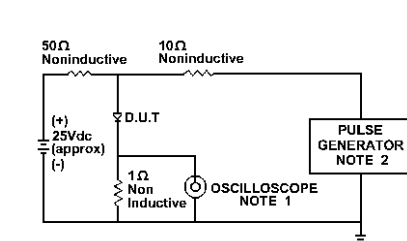
PARAMETER	SYMBOL	UF300	UF301	UF302	UF304	UF306	UF308	UF3010	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current .375"(9.5mm) lead length at T _A =55°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}	150							A
Maximum Forward Voltage at 3.0A	V _F	1.0			1.3	1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _J =25°C T _J =100°C	I _R	10.0 750							μA
Typical Junction Capacitance (Note 1)	C _J	75				50			pF
Typical Thermal Resistance (Note 2)	R _{θJA} R _{θJC}	20 12							°C / W
Maximum Reverse Recovery Time (Note 3)	t _{rr}	50				75			ns
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient and from Junction to lead length 0.375"(9.5mm) P.C.B. mounted.
3. Reverse Recovery Time $I_F=5A$, $I_R=1A$, $I_{rr}=25A$

RATINGS AND CHARACTERISTIC CURVES

UF300 THRU UF3010



NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

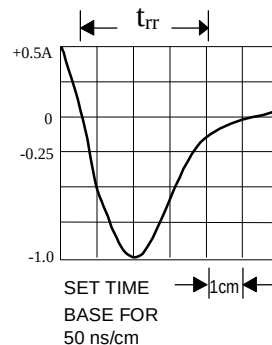


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

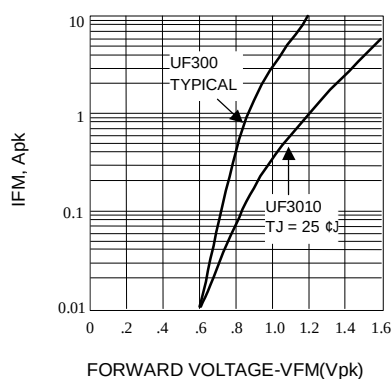


Fig. 2-FORWARD CHARACTERISTICS

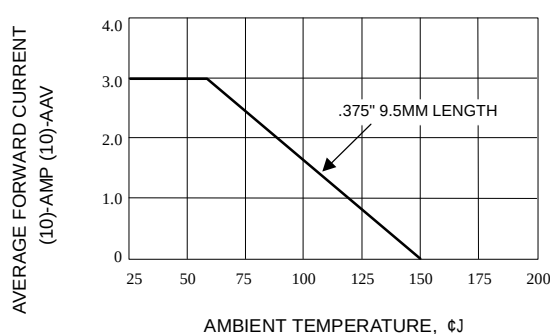


Fig. 3-FORWARD CURRENT DERATING CURVE

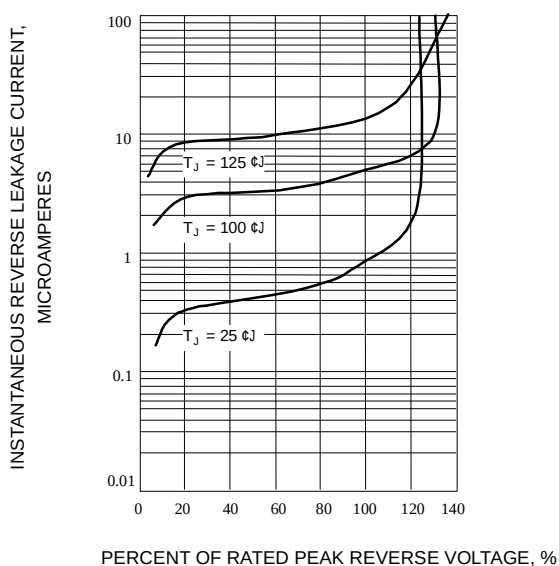


Fig. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

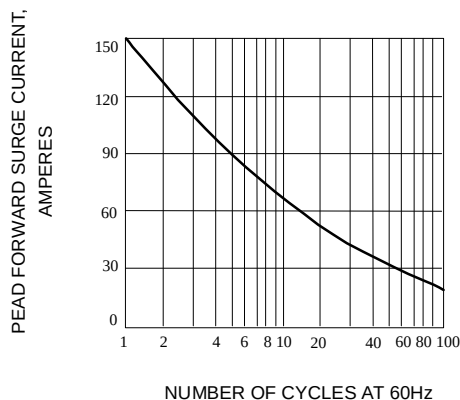


Fig. 5-PEAK FORWARD SURGE CURRENT