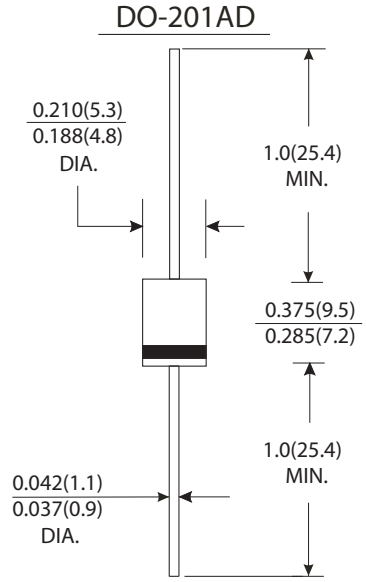
DEC

UF5400 THRU UF5408

CURRENT 3.0 Amperes
VOLTAGE 50 to 1000 Volts

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High current capability
- High reliability
- Low power loss, high effciency
- High surge current capability
- High speed switching
- Low leakage



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC DO-201AD molded plastic body
- Epoxy : UL94V-0 rate flame retardant
- Lead : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.042 ounce, 1.19 gram

Maximum Ratings And Electrical Characteristics

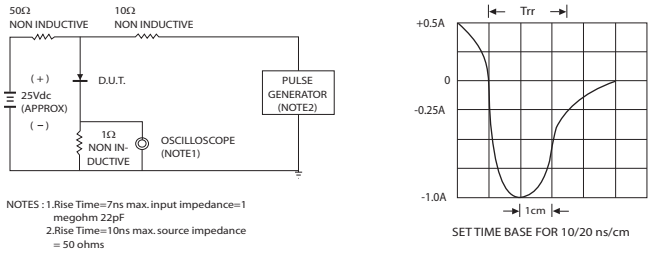
(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5406	UF 5407	UF 5408	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at T_A=50℃	$I_{(AV)}$	3.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200.0					150.0			Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.0			1.3		1.7			Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	10.0								μ A
Maximum full load reverse current full cycle average. 0.375"(9.5mm) lead length at T_L=55℃		150								
Maximum reverse recovery time (Note 1)	Trr	50					70			ns
Typical junction capacitance (Note 2)	C_J	70					50			pF
Operating junction and storage temperature range	T_J T_{STG}	-65 to +150								℃

Notes:
(1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
(2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES UF5400 THRU UF5408

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



NOTES : 1.Rise Time=7ns max. input impedance=1 megohm 22pF
2.Rise Time=10ns max. source impedance = 50 ohms

SET TIME BASE FOR 10/20 ns/cm

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

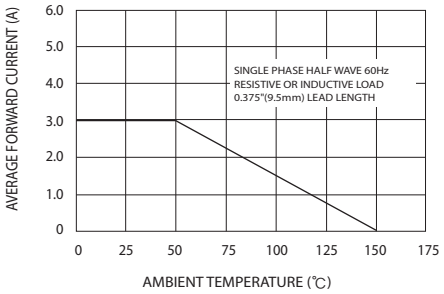


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

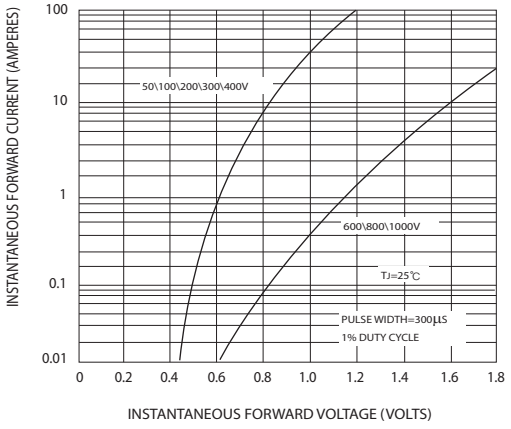


FIG.4-TYPICAL REVERSE CHARACTERISTICS

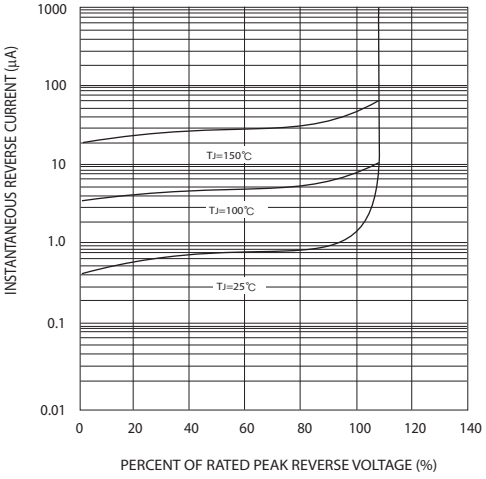


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

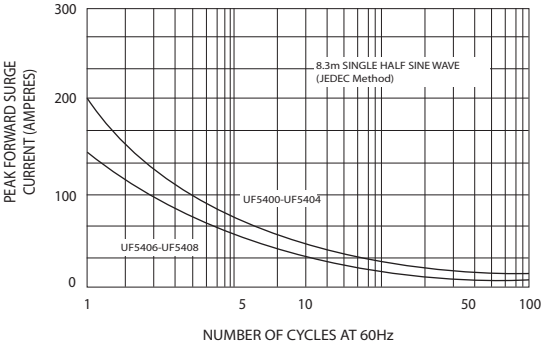


FIG6-TYPICAL JUNCTION CAPACITANCE