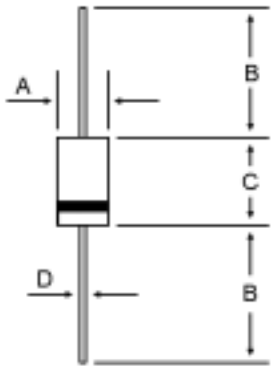
MOSPEC

UF5400-T52 Thru UF5408-T52

ULTRA-FAST PLASTIC RECTIFIER
VOLTAGE RANGE 50 TO 1000 Volts
CURRENT 3.0 Ampere

FEATURES
- ＊Ultra-fast recovery time for high efficiency
- ＊Glass Passivated Chip junction
- ＊Excellent high temperature switching
- ＊Low reverse leakage current
- ＊Low forward voltage drop
- ＊High current capability

DO-201AD



DIM	MILLIMETERS	
	MIN	MAX
A	5.00	5.60
B	25.40	---
C	8.50	9.50
D	1.20	1.30

MECHANICAL DATA
- ＊Case：JEDEC DO-15ic
- ＊Epoxy: UL94V-O rate flame retardant
- ＊Terminals：Solderable Per MIL-STD-202 Method 208
- ＊Polarity：Color band denotes cathode end
- ＊Mounting position: Any
- ＊Weight：0.015 ounces,0.4 grams

Plating pb free
The marking is indicated by part no. with “M”.
ex: UF5401M ~UF5407M

MAXIMUM RATINGS AND ELECTRICAL CHARATERISTICS

* Rating at 25℃ ambient temperature unless otherwise specified
* Single phase,half wave. 60Hz, resistive or inductive load.
* For capacitive load derate current bh 20 %

Characteristic	Symbol	UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5405	UF 5406	UF 5407	UF 5408	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	300	400	500	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	350	420	560	700	V
Average Rectifier Forward Current Per Leg T_C=55℃	$I_{F(AV)}$	3.0									A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	150									A
Maximum Instantaneous Forward Voltage (I_F =3.0 Amp T_C = 25℃)	V_F	1.0				1.7					V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 100℃)	I_R	10 75				10 200					uA
Reverse Recovery Time (I_F = 0.5 A, I_R =1.0 , I_{rr} =0.25 A)	T_{rr}	50				75					ns
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_j	45				36					pF
Typical Thermal Resistance (1)	$R_{\theta Ja}$ $R_{\theta jl}$	20 8.5									℃/W
Operating and Storage Junction Temperature Range	T_J , T_{stg}	-65 to +150									℃

Notes:
(1) Thermal resistance from junction to lead and from junction to ambient with 0.375”(9.5mm) lead length, both leads attached to heatsink

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FIG-1 TYPICAL FORWARD CHARACTERISITICS

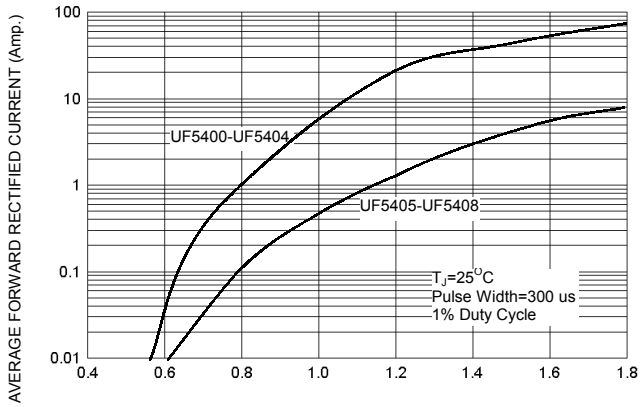


FIG-2 TYPICAL REVERSE CHARACTERISTICS

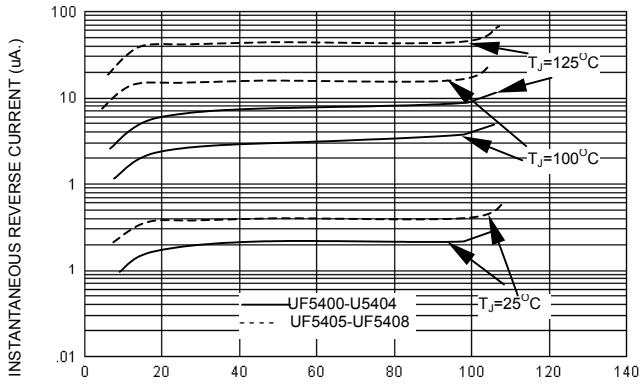


FIG-3 FORWARD CURRENT DERATING CURVE

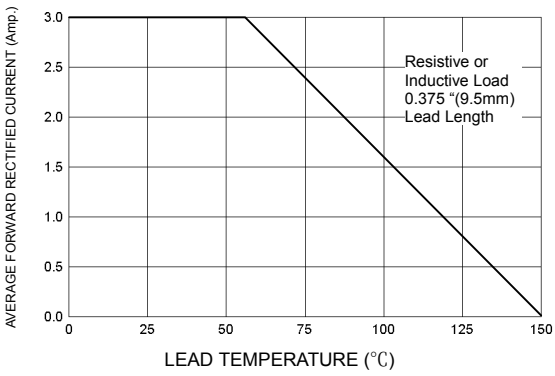


FIG-4 TYPICAL JUNCTION CAPACITANCE

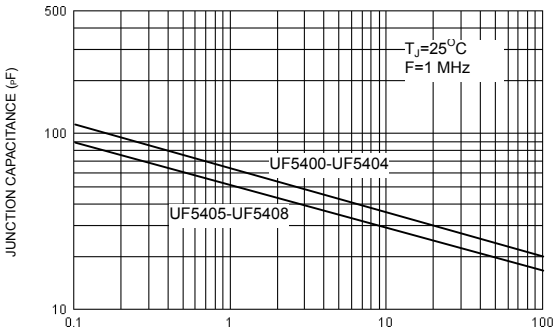
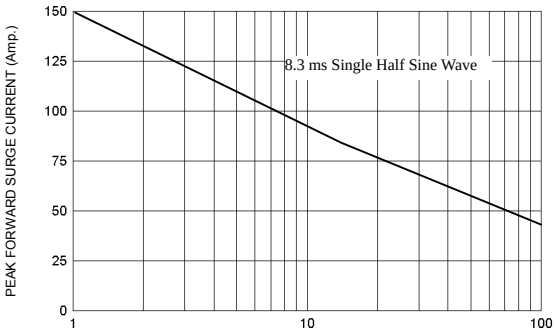
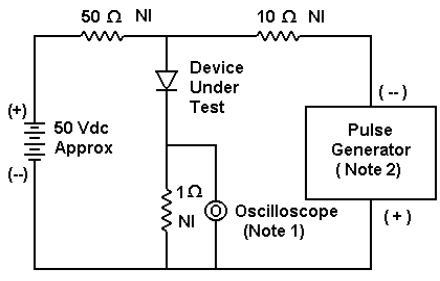
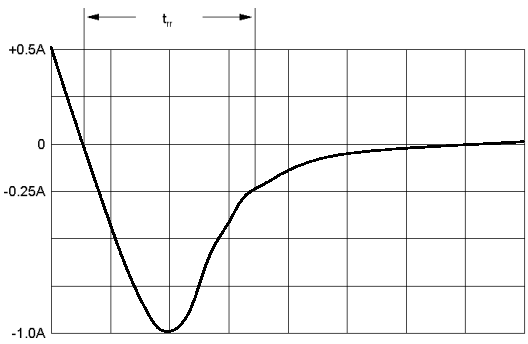


FIG-5 PEAK FORWARD SURGE CURRENT





Notes:
1. Rise Time = 7 ns max. Input Impedance =1 M Ω , 22 pF
2. Rise Time = 10 ns max. Input Impedance = 50 Ω



Set time base for 10/20 ns/cm

FIG-6 Reverse Recovery Time Characteristic and Test Circuit Diagram

THROUGH HOLE - AXIAL LEADED

Taping Specifications

Description	Dimension	Case Style	Specification(mm)
Component Pitch	A	DO-15, DO-35, DO-41, DO-7, A-405, R-3, R-1	5.0±0.5
		5KP, DO-201AD, R-6	10.0±0.5
Inside Tape Spacing	B	All	52.0±0.5
Lead To Lead Eccentricity	[C_1 - C_2]	All	1.0 Max.
Lead Extension	D	All	0.5 Max.
Lead Bending	E	All	1.2 Max.
Cumulative Pitch	G	All	1.5 per 10 pitch
Exposed Adhesive	H	All	0.8 Max.
Tape Width	J	All	6.0±0.4
Tape Leader	Beginning and end of reel or ammo pack		300.0 Min.
Empty Spaces	Consecutive missing components not allowed		<0.1%
Polarity Marking	All polarized components shall be oriented in the same direction. The cathode tape shall be colored and the anode tape shall be white or light beige.		

Dimensions apply to both sides of the reel