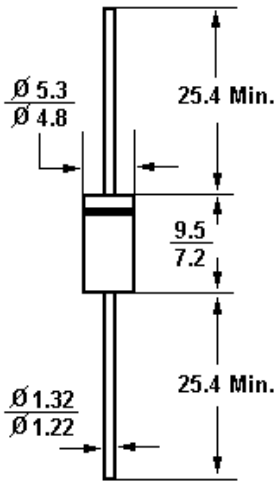
UF5400~UF5408

ULTRAFAST PLASTIC RECTIFIER

Reverse Voltage – 50 to 1000 Volts
Forward Current – 3.0 Amperes

DO-201AD



Dimnsions in mm

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Low cost
- Ultrafast recovery time for high efficiency
- High current capability, low forward voltage
- High surge capability
- Low leakage
- High temperature soldering guaranteed: 250℃/10 sec, 0.375”(9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

- **Case:** Molded plastic body, JEDEC DO-201AD
- **Terminals:** Plated Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any

Absolute Maximum Ratings and Characteristics

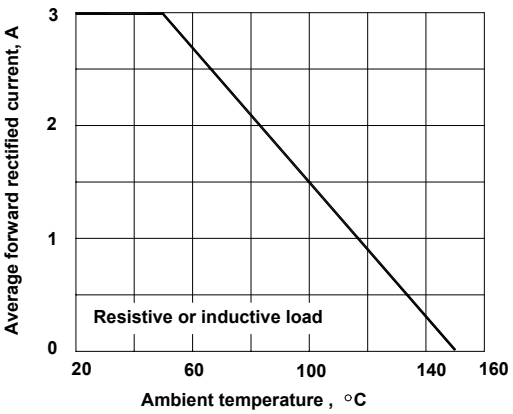
Ratings at 25^{0}C unless otherwise specified.

	Symbols	UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5405	UF 5406	UF 5407	UF 5408	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	350	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	500	600	800	1000	V
Maximum average forward rectified current 0.375” (9.5mm)lead length at Ta = 55 ^{O}C	$I_{(AV)}$	3.0									A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)at Ta = 55 ^{O}C	I_{FSM}	150									A
Maximum instantaneous forward voltage at 3 A (Note 1)	V_F	1.0			1.3		1.7				V
Maximum reverse current T_A = 25 ^{O}C	I_R	10									μA
at rated reverse voltage T_A = 100^{O}C		75			200						
Maximum reverse recovery time At I_F = 0.5A, I_R = 1.0A, Irr = 0.25A, T_J = 25 ^{O}C	t_{rr}	50			75						ns
Typical junction capacitance at 4.0V, 1MHz	C_{tot}	45			36						pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	20 8.5									^{O}C/W
Operating junction temperature range	T_J	-55 to +150									^{O}C
storage temperature range	T_S	-55 to +150									^{O}C

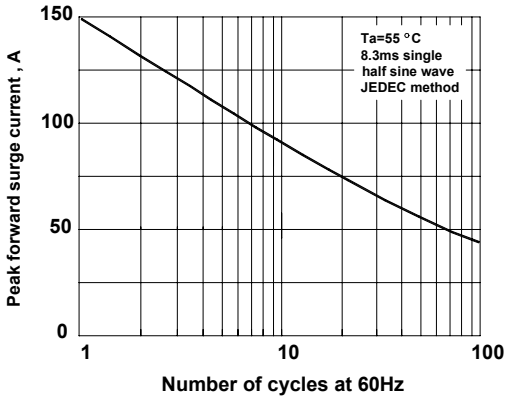
Notes:(1) Pulse test: 300 μs pulse width, 1% duty cycle

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

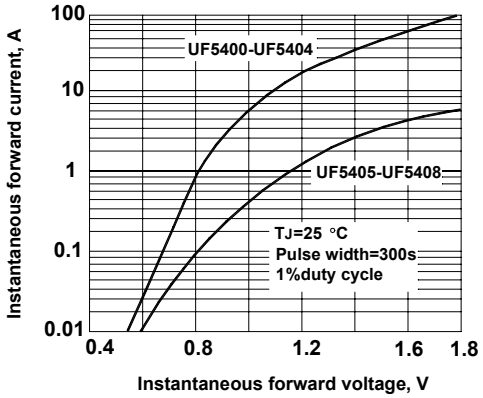
Maximum forward current derating curve



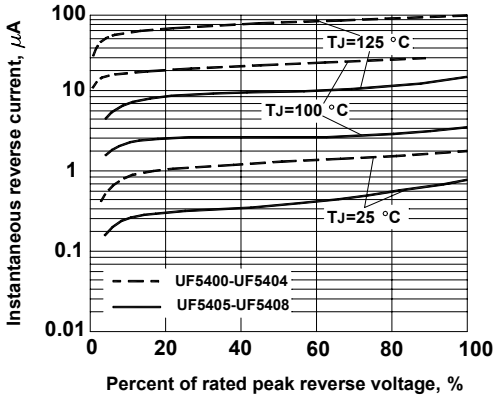
Maximum non-repetitive peak forward surge current



Typical instantaneous forward characteristics



Typical reverse leakage characteristics



Typical junction capacitance