

UF4001 THRU UF4007 ULTRA FAST RECTIFIERS

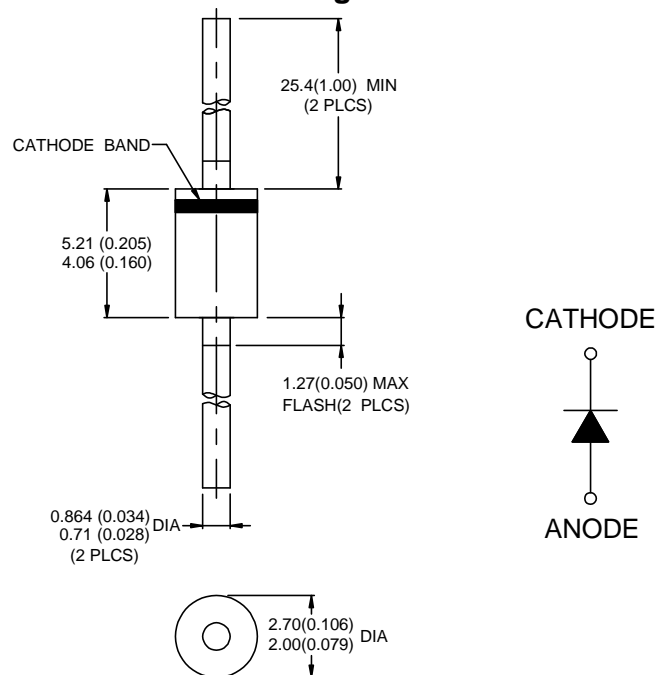
Applications:

- Switching Power Supply
- Power Switching Circuits
- General Purpose

Features:

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-O
- Ultra-fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds, 0.375"(9.5mm) lead length
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions: In mm / Inches and Marking:



DO-41

MARKING, MOLDING RESIN

Marking: UF4001/UF4002/UF4003/UF4004/UF4005/ UF4006/UF4007

Marking Diagram:



UF4001 = Part Name

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
UF4001 THRU UF4007	DO-41 (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	<i>SYMBOLS</i>	<i>UF 4001</i>	<i>UF 4002</i>	<i>UF 4003</i>	<i>UF 4004</i>	<i>UF 4005</i>	<i>UF 4006</i>	<i>UF 4007</i>	<i>UNIS</i>
Maximum repetitive 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 rectified current 0.375"(9.5mm) lead length at T _A =55℃	I _(AV)	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V _F	1.0				1.70			V
Maximum DC reverse current T _A =25℃ at rated DC blocking voltage T _A =100℃	I _R	5.0 50.0							μ A
Power dissipation value	P _{DV}	-						1.5	W
Maximum reverse recovery time (Note 1)	t _{rr}	50				75			ns
Typical junctin capacitance (Note 2)	C _J	15.0							pF
Typical thermal resistance (Note 3)	R _{CJA}	50.0							℃/W
Approximate Weight	wt	0.35							g
Operating junction and storage temperature range	T _J ,T _{STG}	-65 to +150							℃

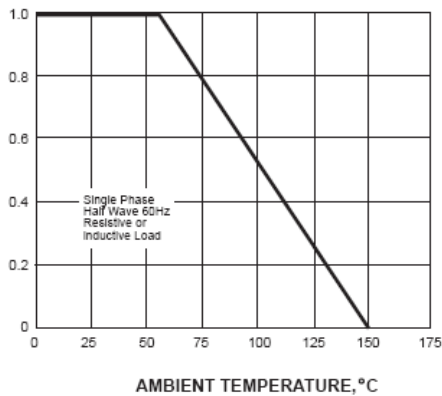
Note: 1. Reverse recovery condition $I_F=0.5A$, $I_R=1.0A$. $I_{rr}=0.25A$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B mounted.

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

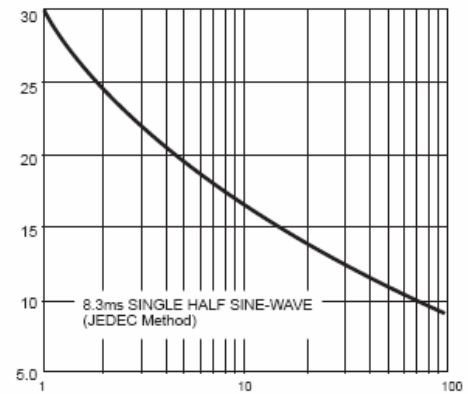
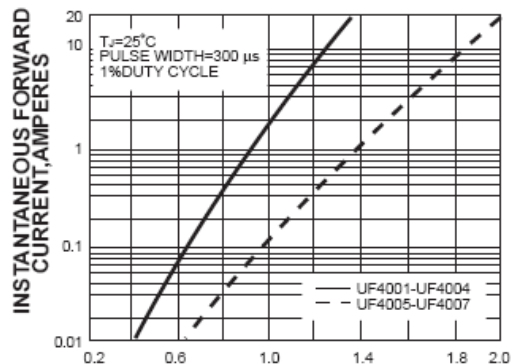


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

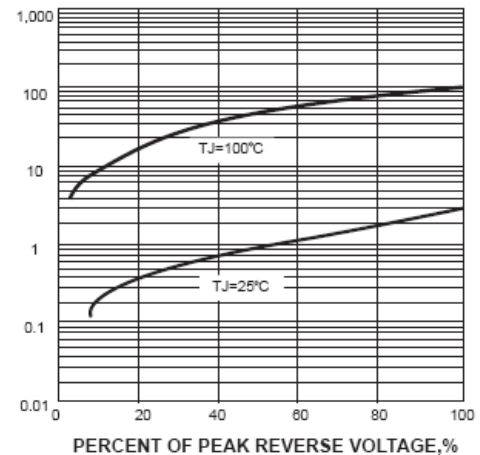
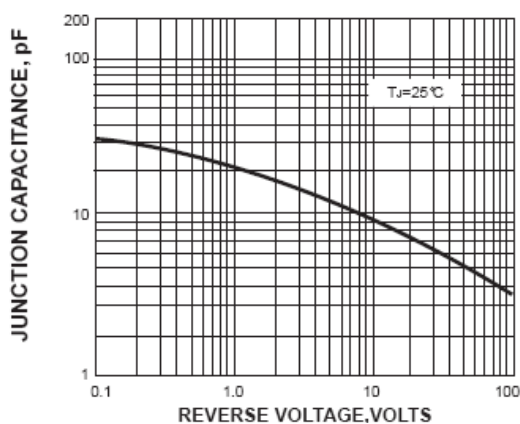
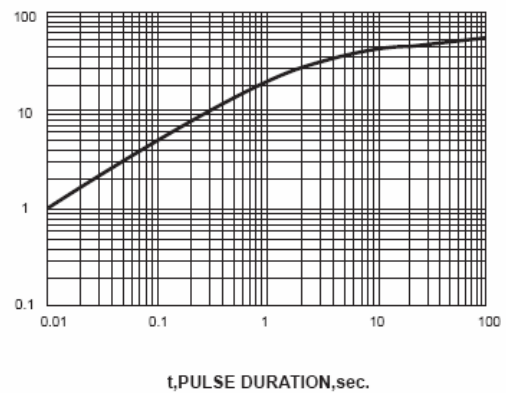


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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