

UF4001G-UF4007G ULTRAFAST RECTIFIER

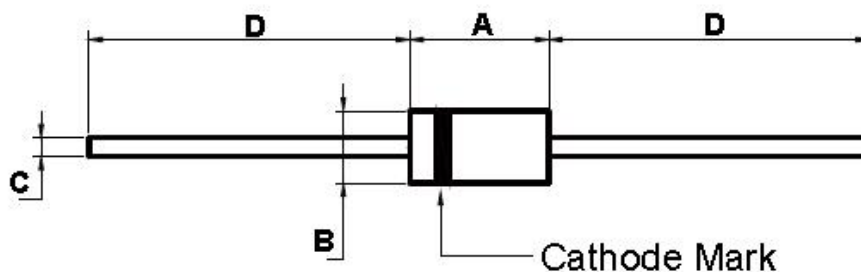
Features:

- Super fast switching for high efficiency
- Low leakage current
- High forward surge capability
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC
- Glass Passivated Die Construction
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Data:

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.33 grams

Mechanical Dimensions: In Inches/mm



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.161	0.205	4.10	5.20	
B	0.080	0.107	2.00	2.70	Φ
C	0.028	0.034	0.70	0.90	Φ
D	1.000	---	25.4	---	

DO-41

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Marking Diagram:



UF4001G = Part Name

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

Ordering Information

Device	Package	Shipping
UF4001G-UF4007G	DO-41 (Pb-Free)	3000pcs / 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

Rating at 25°C ambient temperature unless otherwise specified

Single Phase half wave 60Hz, resistive or inductive load. For capacitive load current derate by 20%.

Characteristic	Symbol	UF 4001G	UF 4002G	UF 4003G	UF 4004G	UF 4005G	UF 4006G	UF 4007G	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	
Average Rectified Output Current @ $T_A = 55^\circ\text{C}$	I_o	10							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage @ $I_F = 1\text{A}$	V_F	1.0				1.7			V
Maximum DC reverse current at rated DC blocking voltage	I_R					5 50			μA
Typical junction capacitance (Note 2)	C_J	15							pF
Maximum Reverse Recovery Time (Note 1)	T_{rr}	50				75			ns
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150							$^\circ\text{C}$

- Note:**
1. Measured with $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$,
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC
 3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted.

FIG. 1- FORWARD CURRENT DERATING CURVE

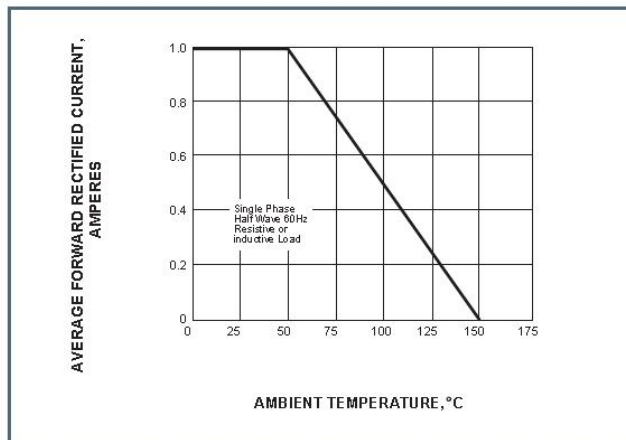


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

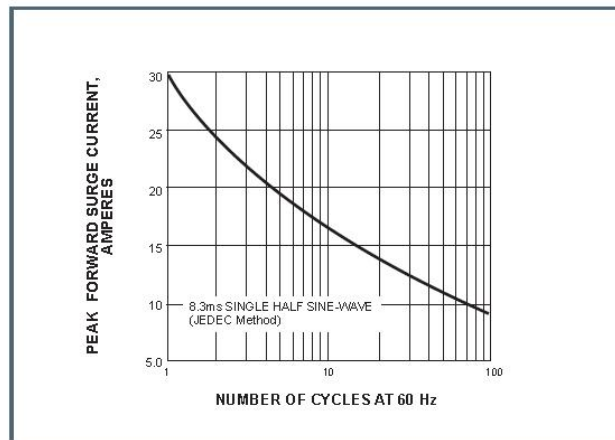


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

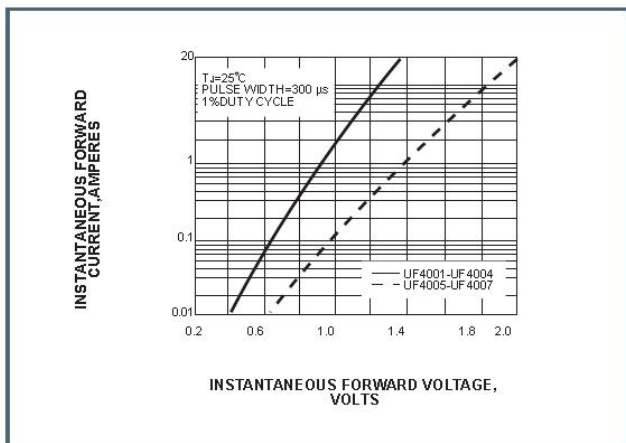
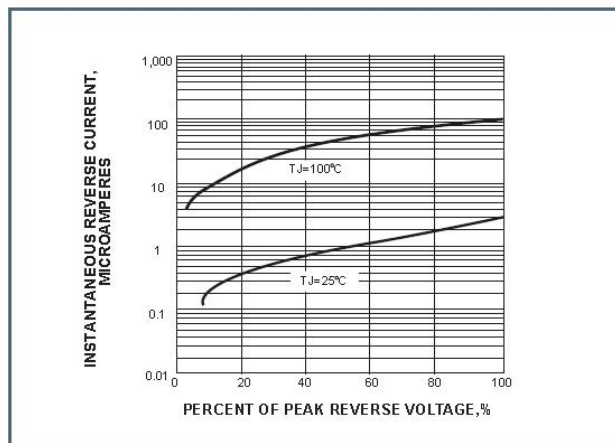


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



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