

Rectifier diodes

Order code	Manufacturer code	Description
47-3154	n/a	UF4001 1A 50V ULTRAFAST DIODE (RC)
47-3156	n/a	UF4002 1A 100V ULTRAFAST DIODE (RC)
47-3158	n/a	UF4004 1A 400V ULTRAFAST DIODE (RC)
47-3160	n/a	UF4006 1A 800V ULTRAFAST DIODE (RC)
47-3162	n/a	UF4007 1A 1000V ULTRAFAST DIODE (RC)

Rectifier diodes	Page 1 of 3
The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003

Semiconductors – Discrete Devices

UF4001 to UF4007 – Ultrafast rectifiers

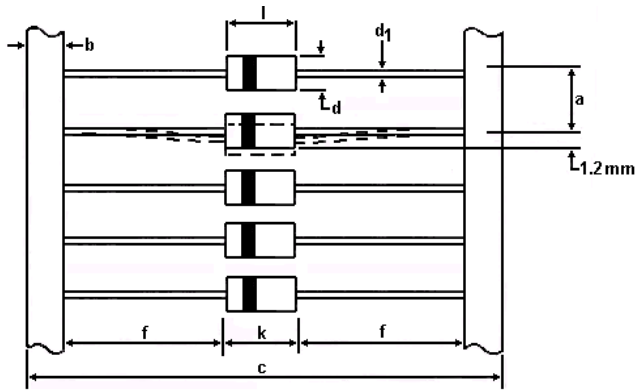
Features:

- Ultra fast recovery times for high efficiency
- High current
- High surge current capability
- Low forward voltage drop
- Economical plastic package
- Low leakage

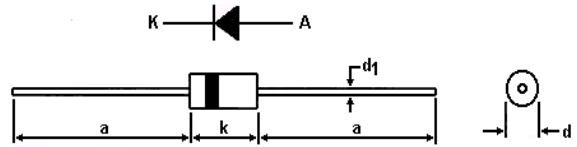
Maximum ratings and electrical characteristics:

Type	Symbol	Unit	UF4001	UF4002	UF4004	UF4006	UF4007
Non-repetitive peak reverse voltage:	U_{RSM}	V	60	120	480	1000	1200
Repetitive peak reverse voltage:	U_{RRM}	V	50	100	400	800	1000
Average forward current @ $T_A = 45^\circ\text{C}$	I_{FAV}	A	1				
Surge forward current (1 cycle) 10ms, sine wave, $T_1 = 25^\circ\text{C}$	I_{FSM}	A	30				
Max. reverse recovery time $I_F = 0.5\text{A}$ $I_R = 1\text{A}$ $I_n = 0.25\text{A}$	T_{RR}	Ns	50			75	
Max. reverse current at U_{RRM} ($T_1 = 25^\circ\text{C}$)	I_R	μA	10				
Max. reverse current at U_{RRM} ($T_1 = 100^\circ\text{C}$)	I_R	A	50				
Max. forward voltage drop at 1A (25°C)	U_F	V	1			1.4	
Thermal resistance junction to lead	R_{th}	K/W	25				
Operating and storage temperature	T_{OP}	$^\circ\text{C}$	-65 to +150				

Tape and reel:



Mechanical data:

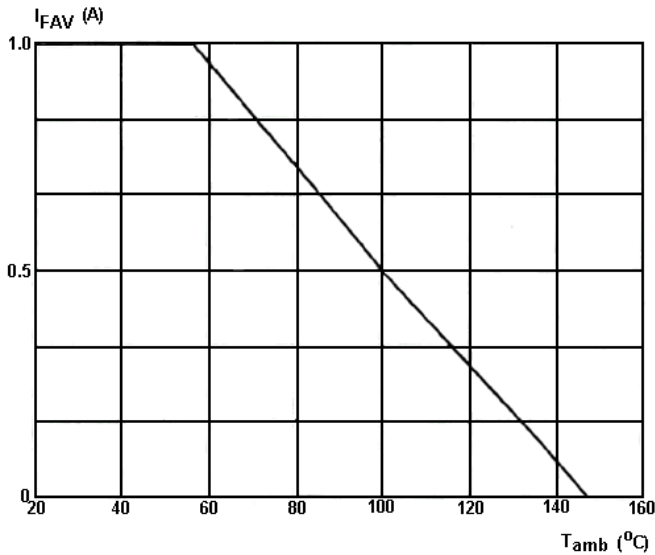


Dimensions (mm)	a	d	k	d_1
	25.4	3.1	5.1	0.86

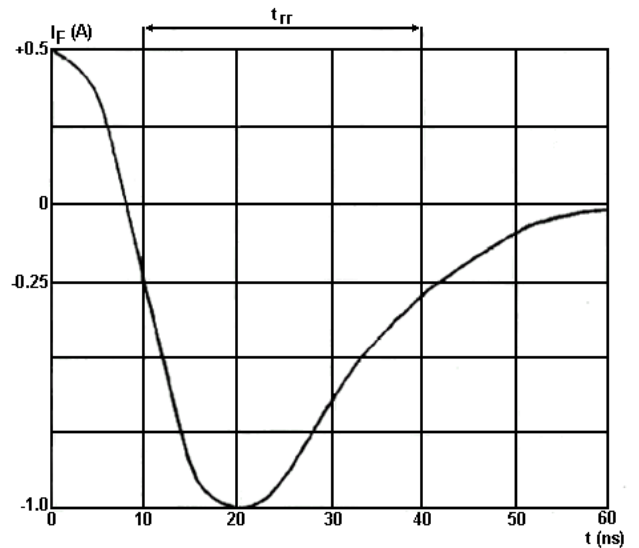
Case:	JEDEC DO-41 package
Epoxy:	UL-94-0 rate, flame retardant
Lead:	MIL-STD-202 method 208C
Weight:	0.35 grams approximately
Polarity:	Cathode indicated by band

Dimensions (mm)	c	b	a	l	d_1	d	f	k
	65.2	6 ± 1	5 ± 0.5	0.5 ± 1	0.86	3.1	23.2 ± 1	6.5

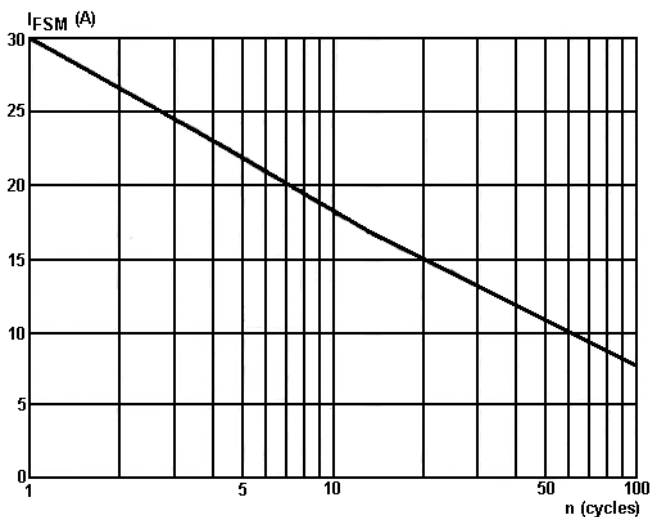
Maximum average forward current rating:



Reverse recovery time characteristics:



Maximum non-repetitive peak forward surge current



Typical forward characteristics

