

## ULTRAFAST PLASTIC RECTIFIER

UF4001 - 4007

DO-41 (Plastic)  
Axial Lead Plastic  
Package



For use in Very High Frequency Switching Power Supplies, Inverters and as Free Wheeling Diodes

### ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4006	UF 4007	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average Forward Rectified Current 0.375" (9.5mm) Lead Length @ $T_a=55^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	30							A
Junction to Ambient in free air	$*R_{th(j-a)}$	60							$^\circ\text{C/W}$
Junction to Lead	$R_{th(j-L)}$	15							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_j, T_{stg}$	- 55 to +150							$^\circ\text{C}$

\*Thermal Resistance from Junction to Ambient @ 0.375" (9.5mm) Lead Length

### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless specified otherwise )

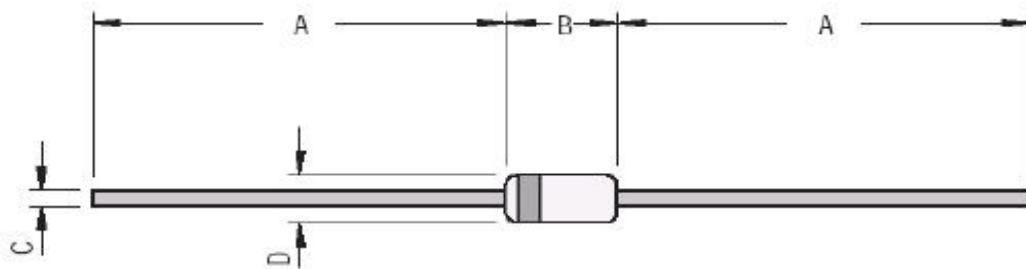
DESCRIPTION	SYMBOL	TEST CONDITION	Min	Typ	Max	UNIT
Instantaneous Forward Voltage	$**V_F$	$I_F=1.0\text{A}$			1.0	V
		<b>UF4001 - 4004</b> <b>UF4005 - 4007</b>			1.7	V
DC Reverse Current	$I_R$	@ Rated DC Blocking Voltage $T_a=25^\circ\text{C}$			10	$\mu\text{A}$
		$T_a=100^\circ\text{C}$			50	$\mu\text{A}$
Reverse Recovery Time	$t_{rr}$	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$			50	ns
		<b>UF4001 - 4004</b> <b>UF4005 - 4007</b>			75	ns
Junction Capacitance	$C_j$	$V_R = 4\text{V}, f = 1\text{MHz}$		17		pF

\*\*Pulse Test : 300ms Pulse Width, 1% Duty Cycle

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**DO-41P Axial Plastic Package**



DIM	Min	Max
A	25.40	
B	4.20	5.20
C	0.70	0.90
D	2.00	2.70

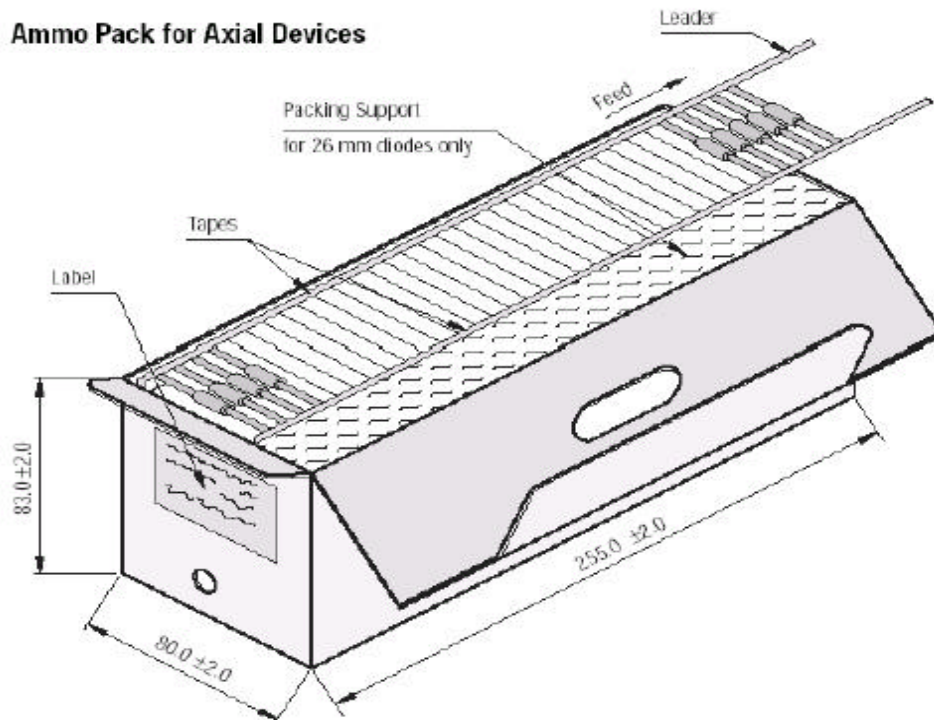
All Dimensions are in mm



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DO-41P Package and Packaging  
**AMMO PACKING FOR DO-41P**



All Dimensions are in mm

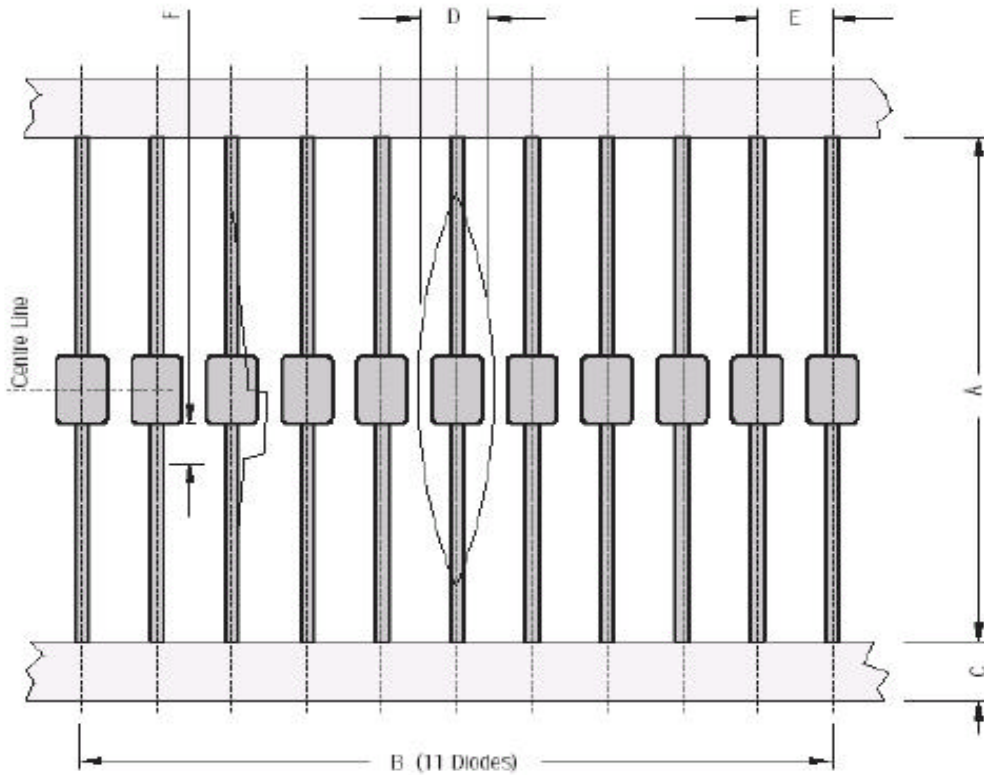
**Packaging Information**

Package/ Case Type	Packaging Type	Std. Packing		Inner Carton		Outer Carton		
		Qty	Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
DO-41P	T&A	5,000	5K	27 x 8 x 14	1.96	45K	46 x 35 x 25	17.5

T & A: Tape and Ammo Pack

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DO-41P Package and Packaging



DO-41P 52 mm Tape		
DIM	Min	Max
A	50.0	54.0
B	95.0	105.0
C	5.60	6.50
D		1.5R
E	9.50	10.50
F		1.25

All Dimensions are in mm

**TAPE SPECIFICATIONS**

1. 300 mm (Min) leader tape on every roll.
2. No. of empty places allowed 0.25% without consecutive empty places.
3. Ends of leads shall normally not protrude beyond the tapes.
4. Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.

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