

## 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							$^\circ\text{C}$

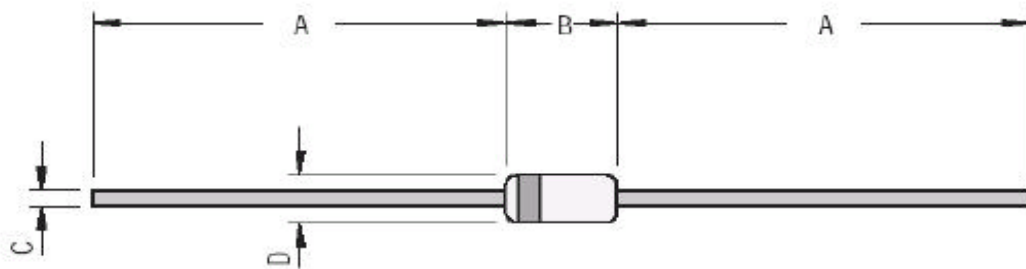
\*Thermal Resistance from Junction to Ambient @ 0.375" (9.5mm) Lead Length

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

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

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

UF4001\_4007Rev270903E

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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

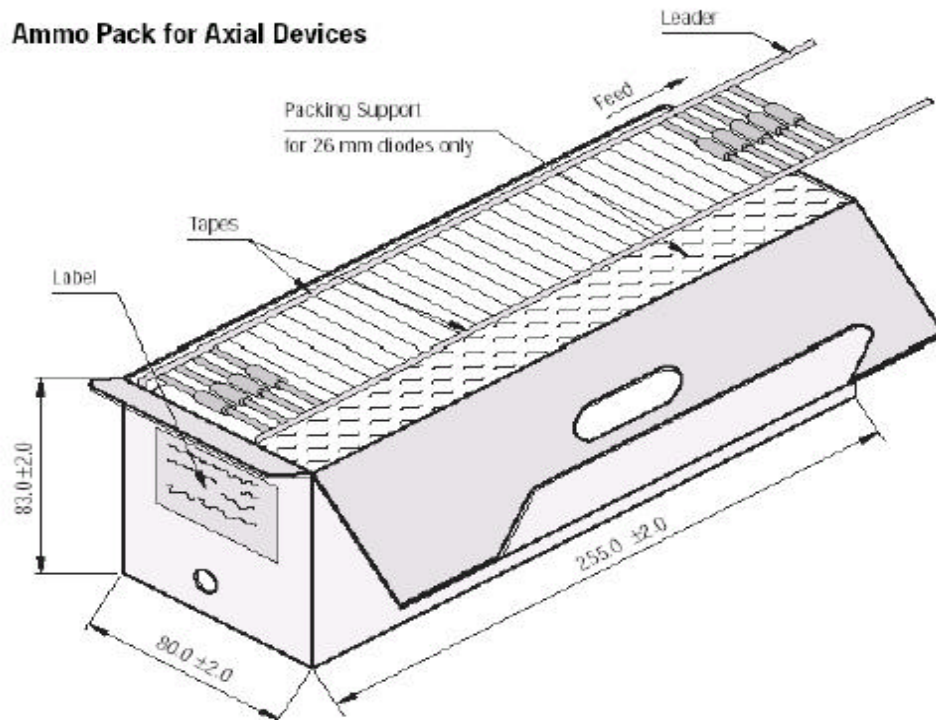


## DO-41 (Plastic) Axial Lead Plastic Package

### DO-41P Package and Packaging

#### AMMO PACKING FOR DO-41P

#### Ammo Pack for Axial Devices



All Dimensions are in mm

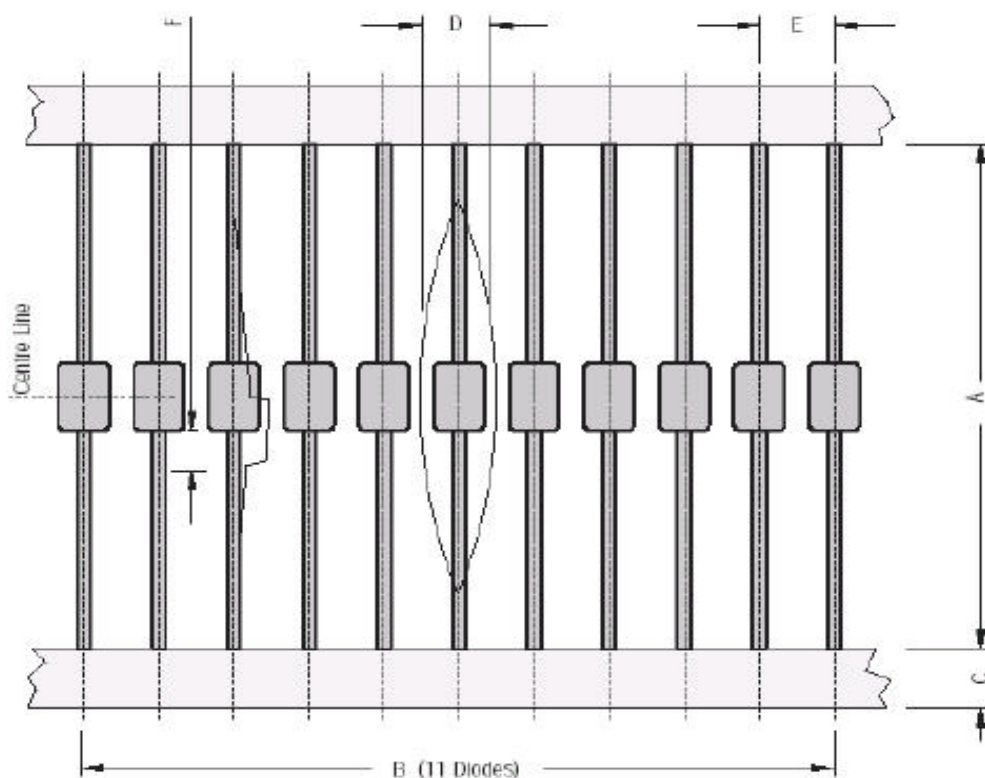
#### Packaging Information

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

# DO-41 (Plastic) Axial Lead Plastic Package

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.

**DO-41 (Plastic)  
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The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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