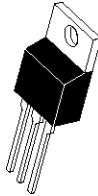
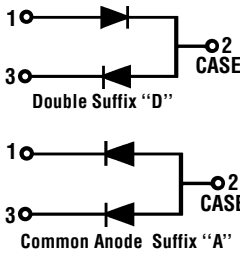




# 16 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

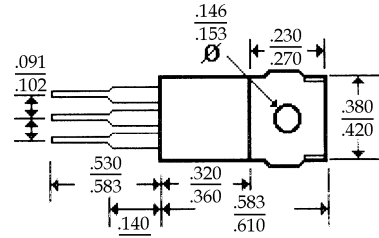
**UF16C05 . . . 60 Series**

## Description



JEDEC TO-220AB

## Mechanical Dimensions



(Dimensions in inches)

## Features

- LOW FORWARD VOLTAGE
- ULTRAFAST RECOVERY TIME
- HIGH SURGE CAPABILITY
- MEETS UL SPECIFICATION 94V-0

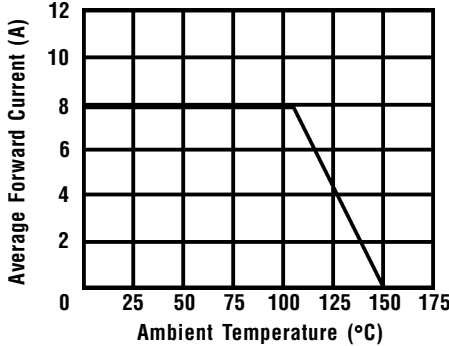
<b>UF16C05 . . . 60 Series</b>								<b>Units</b>		
<b>Maximum Ratings</b>	<b>05</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>		
Peak Repetitive Reverse Voltage... $V_{RRM}$	50	100	150	200	300	400	500	600	Volts	
Working Peak Reverse Voltage... $V_{RWM}$	50	100	150	200	300	400	500	600	Volts	
DC Blocking Voltage... $V_{DC}$	50	100	150	200	300	400	500	600	Volts	
RMS Reverse Voltage... $V_{R(rms)}$	35	70	105	140	210	280	350	420	Volts	
Average Forward Rectified Current... $I_{F(av)}$ $T_C = 150^\circ\text{C}$ @ Rated $V_{DC}$					8.0				Amps	
Repetitive Peak Forward Surge Current... $I_{FM}$ @ Rated $V_{DC}$ , Square Wave, 20 kHz, $T_C = 150^\circ\text{C}$					16				Amps	
Non-Repetitive Peak Forward Surge Current... $I_{FSM}$ @ Rated Load Cond., 1/2 Wave, Single Phase, 60Hz					125				Amps	
Operating & Storage Temperature Range... $T_J, T_{STRG}$					-65 to 150				°C	
<b>Electrical Characteristics</b>										
Maximum Forward Voltage... $V_F$ @ $I_F = 8$ Amps, PW = 300 $\mu$ s	$T_C = 150^\circ\text{C}$	< ..... 0.895 ..... >				$T_C = 150^\circ\text{C}$	< ..... 1.0 ... >		< ..... 1.2 ..... >	Volts
	$T_C = 25^\circ\text{C}$	< ..... 0.975 ..... >				$T_C = 25^\circ\text{C}$	< ..... 1.3 ... >		< ..... 1.5 ..... >	Volts
Maximum DC Reverse Current... $I_R$ @ Rated DC Blocking Voltage	$T_C = 150^\circ\text{C}$					500				$\mu$ Amps
	$T_C = 25^\circ\text{C}$					10				$\mu$ Amps
Maximum Reverse Recovery Time... $t_{RR}$ $I_F = 1.0$ Amp, di/dt = 50 Amps/ $\mu$ s	< ..... 35 ..... >				< ..... 50 ..... >					ns



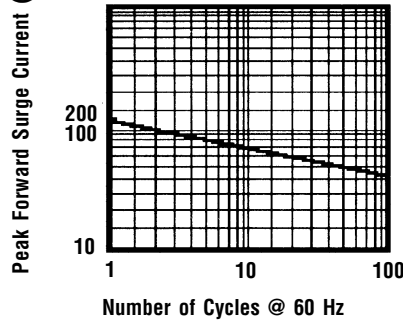
# 16 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

**UF16C05 . . . 60 Series**

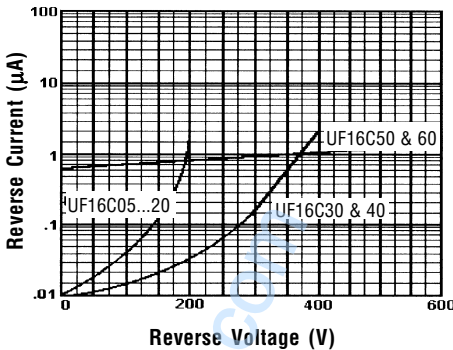
**Forward Current Derating Curve**



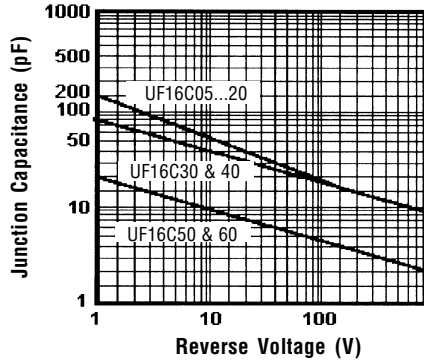
**Non-Repetitive Peak Forward Surge Current**



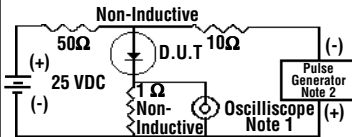
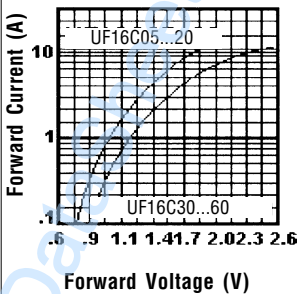
**Typical Reverse Characteristics**



**Typical Junction Capacitance**



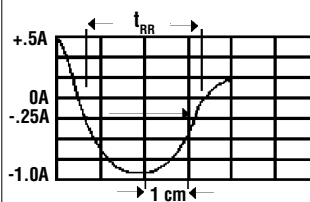
**Typical Instantaneous Forward Characteristics**



Notes:

1. Rise Time = 7 ns Max. Impedance = 1 megohm, 22 pF
2. Rise Time = 10 ns Max. Source Impedance = 50 Ohms

**Reverse Recovery Characteristics**



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 Hz Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.