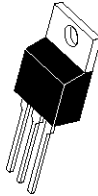
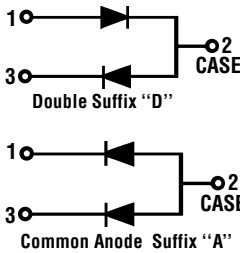




# 16 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

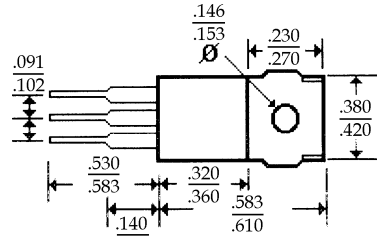
UF16C05 . . . 60 Series

## Description



JEDEC TO-220AB

## Mechanical Dimensions



(Dimensions in inches)

## Features

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

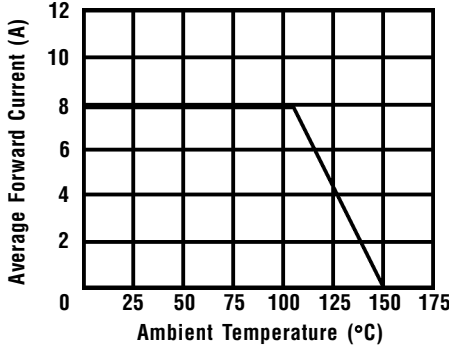
	UF16C05 . . . 60 Series								Units	
Maximum Ratings	05	10	15	20	30	40	50	60		
Peak Repetitive Reverse Voltage... $V_{RRM}$	50	100	150	200	300	400	500	600	Volts	
Working Peak Reverse Voltage... $V_{RWM}$	50	100	150	200	300	400	500	600	Volts	
DC Blocking Voltage... $V_{DC}$	50	100	150	200	300	400	500	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								$^\circ\text{C}$	
<b>Electrical Characteristics</b>										
Maximum Forward Voltage... $V_F$ @ $I_F = 8$ Amps, $PW = 300\mu\text{s}$	$T_C = 150^\circ\text{C}$	< ..... 0.895 ..... >				< ..... 1.0 ... >	< ..... 1.2 ..... >		Volts	
	$T_C = 25^\circ\text{C}$	< ..... 0.975 ..... >				< ..... 1.3 ... >	< ..... 1.5 ..... >		Volts	
Maximum DC Reverse Current... $I_R$ @ Rated DC Blocking Voltage	$T_C = 150^\circ\text{C}$					500				$\mu\text{Amps}$
	$T_C = 25^\circ\text{C}$					10				$\mu\text{Amps}$
Maximum Reverse Recovery Time... $t_{RR}$ $I_F = 1.0$ Amp, $di/dt = 50$ Amps/ $\mu\text{s}$	< ..... 35 ..... >				< ..... 50 ..... >					ns



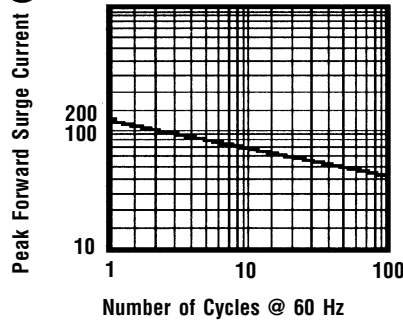
# 16 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

**UF16C05 . . . 60 Series**

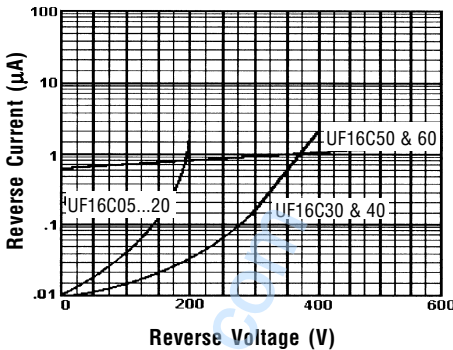
**Forward Current Derating Curve**



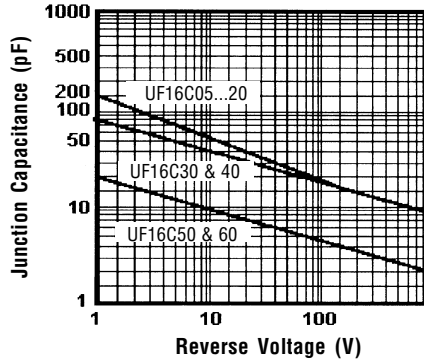
**Non-Repetitive Peak Forward Surge Current**



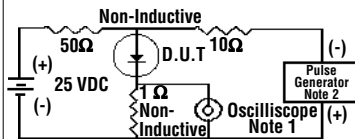
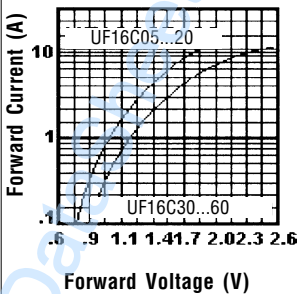
**Typical Reverse Characteristics**



**Typical Junction Capacitance**



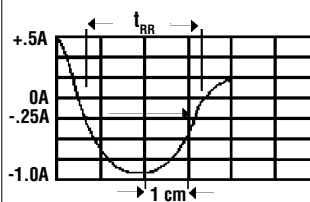
**Typical Instantaneous Forward Characteristics**



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%.