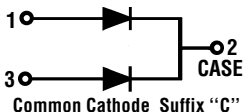
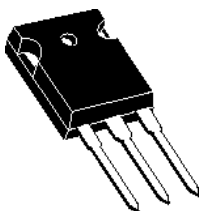
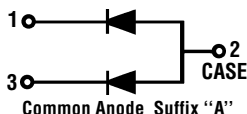
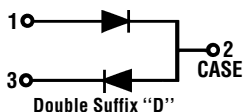


# 30 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

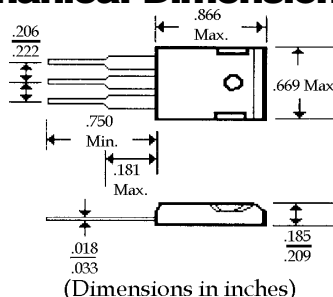
UF30C05 . . . 60 Series

## Description



## Mechanical Dimensions

T0-3P



## Features

- LOW FORWARD VOLTAGE
- HIGH SURGE CAPABILITY

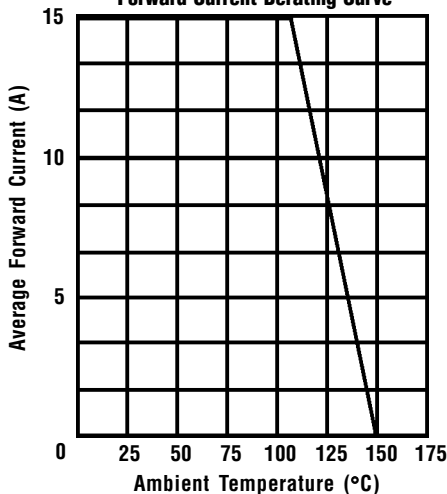
- ULTRAFAST RECOVERY TIME
- MEETS UL SPECIFICATION 94V-0

UF30C05 . . . 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... $I_{F(av)}$	.....				15	.....			Amps
$T_C = 150^{\circ}\text{C}$ @ Rated $V_{DC}$	.....				30	.....			Amps
Repetitive Peak Forward Surge Current... $I_{FM}$	.....				30	.....			Amps
@ Rated $V_{DC}$ , Square Wave, 20 kHz, $T_C = 150^{\circ}\text{C}$									
Non-Repetitive Peak Forward Surge Current... $I_{FSM}$	.....				300	.....			Amps
@ Rated Load Cond., 1/2 Wave, Single Phase, 60Hz									
Operating & Storage Temperature Range... $T_J, T_{STRG}$	.....				-65 to 175	.....			$^{\circ}\text{C}$
Electrical Characteristics									
Maximum Forward Voltage... $V_F$									
@ $I_F = 15$ Amps, PW = 300 $\mu\text{s}$	$T_C = 150^{\circ}\text{C}$	< .....	0.880 .....	> < .....	1.12 ...	> < .....	1.34 .....	>	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

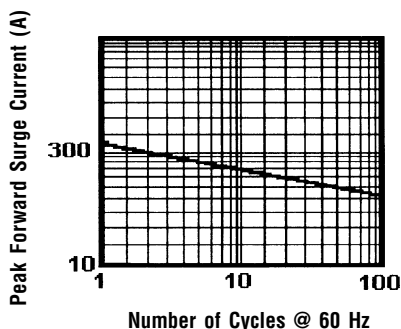
# 30 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

**UF30C05 . . . 60 Series**

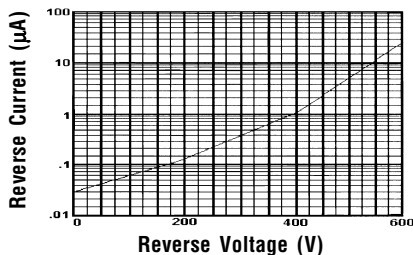
**Forward Current Derating Curve**



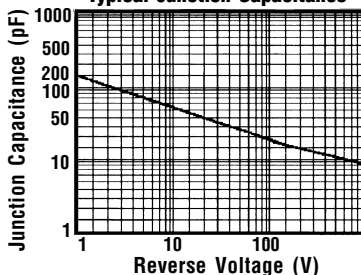
**Non-Repetitive  
Peak Forward Surge Current**



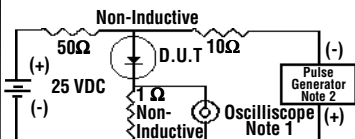
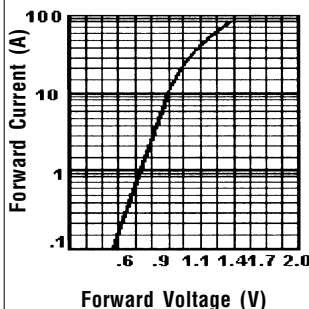
**Typical Reverse Characteristics**



**Typical Junction Capacitance**



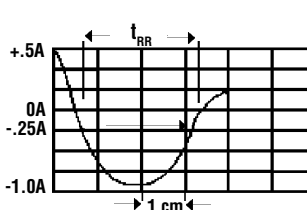
**Typical Instantaneous  
Forward Characteristics**



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**



Time Base Set @ 50/100ns/cm

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%.