

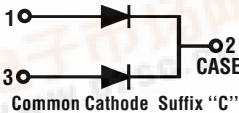
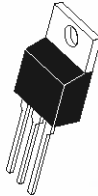
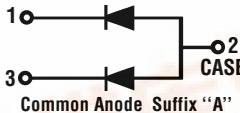
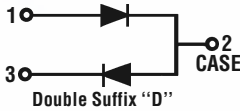


Data Sheet

16 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

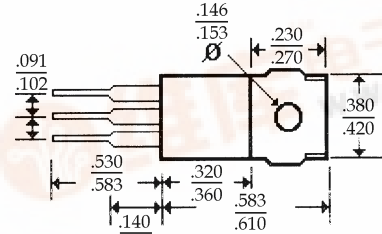
UF16C05 . . . 60 Series

Description



Mechanical Dimensions

JEDEC TO-220AB



(Dimensions in inches)

Features

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

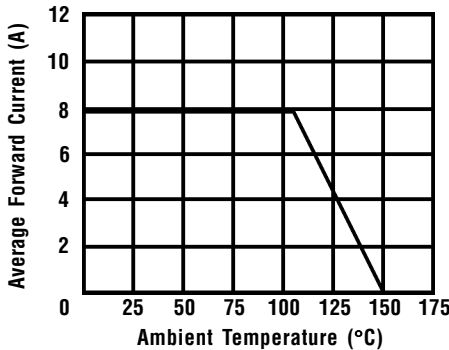
UF16C05 . . . 60 Series								Units	
Maximum Ratings	05	10	15	20	30	40	50	60	
Peak Repetitive Reverse Voltage... V_{RRM}	50	100	150	200	300	400	500	600	Volts
Working Peak Reverse Voltage... V_{RWM}	50	100	150	200	300	400	500	600	Volts
DC Blocking Voltage... V_{DC}	50	100	150	200	300	400	500	600	Volts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



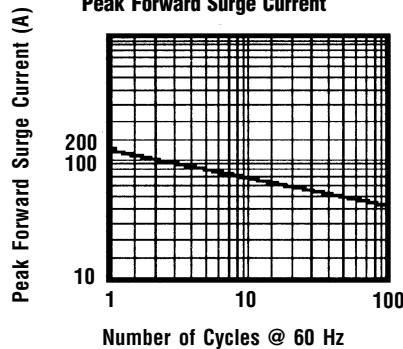
16 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

UF16C05 . . . 60 Series

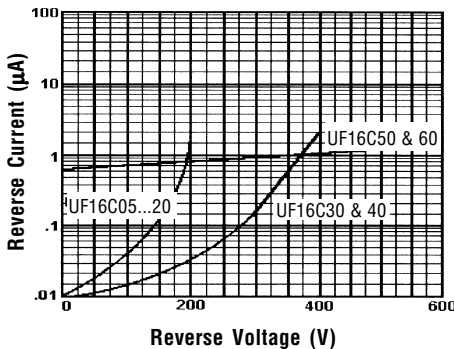
Forward Current Derating Curve



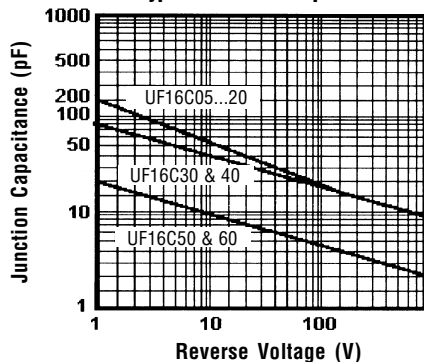
Non-Repetitive Peak Forward Surge Current



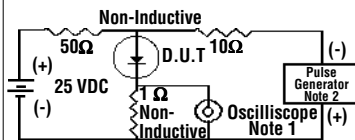
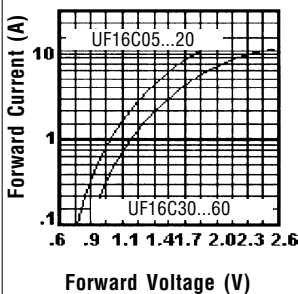
Typical Reverse Characteristics



Typical Junction Capacitance



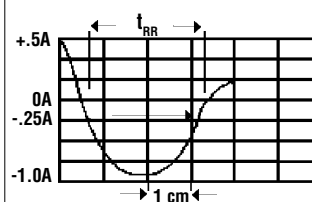
Typical Instantaneous Forward Characteristics



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



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%.