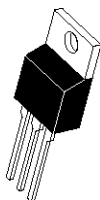
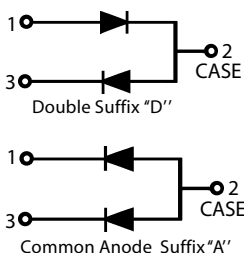




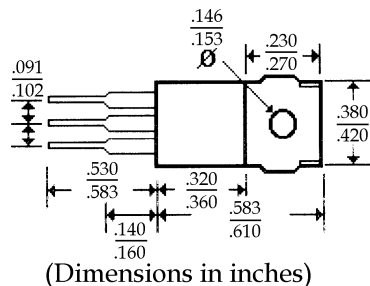
UF16C05 ... 60 Series

Description



Mechanical Dimensions

JEDEC TO-220AB



Features

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

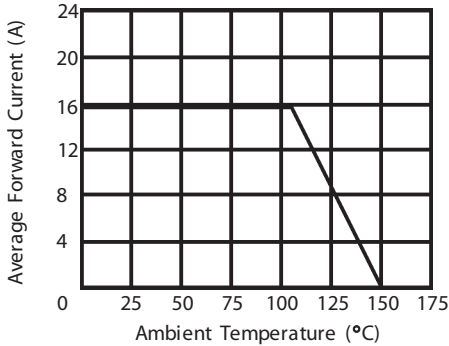
UF16C05 ... 60 Series								Units			
Maximum Ratings	05	10	15	20	30	40	50	60			
Peak Repetitive Reverse Voltage... V_{RRM}	50	100	150	200	300	400	500	600	Volts		
Working Peak Reverse Voltage... V_{RWM}	50	100	150	200	300	400	500	600	Volts		
DC Blocking Voltage... V_{DC}	50	100	150	200	300	400	500	600	Volts		
RMS Reverse Voltage... $V_{R(rms)}$	35	70	105	140	210	280	350	420	Volts		
Average Forward Rectified Current... $I_{F(av)}$ $T_C = 105^\circ C$ @ Rated V_{DC}					8.0				Amps		
Repetitive Peak Forward Surge Current... I_{FM} @ Rated V_{DC} , Square Wave, 20 kHz, $T_C = 150^\circ C$					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				$^\circ C$		
Electrical Characteristics											
Maximum Forward Voltage... V_f @ $I_F = 8$ Amps, PW = 300 μs	$T_C = 150^\circ C$	<.....	0.895	>	<.....	1.0	>	Volts	
	$T_C = 25^\circ C$	<.....	0.975	>	<.....	1.3	>	Volts	
Maximum DC Reverse Current... I_R @ Rated DC Blocking Voltage	$T_C = 150^\circ C$	500						$\mu Amps$	
	$T_C = 25^\circ C$	10						$\mu Amps$	
Maximum Reverse Recovery Time... t_{RR} $I_F = 1.0$ Amp, di/dt = 50 Amps/ μs			<.....	35	>	<.....	50	>	ns

Typical Junction capacitance @1MHz and applied reverse Voltage of 4.0V DC -----65pF
 Typical Thermal Resistance From Junction to ambient 9.5mm Lead length -----2.2 C/W

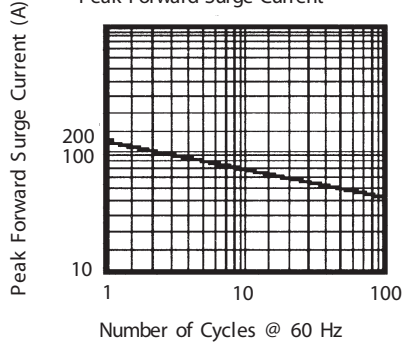
16 Amp ULTRAFAST SWITCHMODE POWER PLASTIC RECTIFIERS

UF16C05 . . . 60 Series

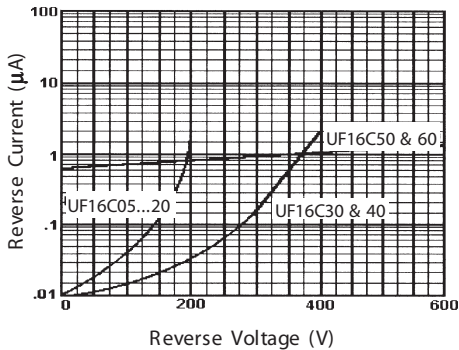
Forward Current Derating Curve



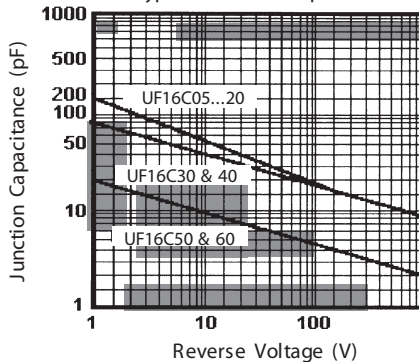
Non-Repetitive Peak Forward Surge Current



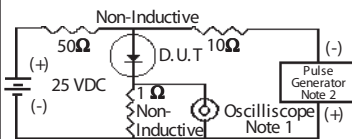
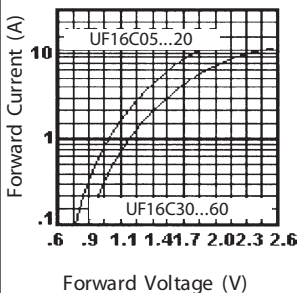
Typical Reverse Characteristics



Typical Junction Capacitance



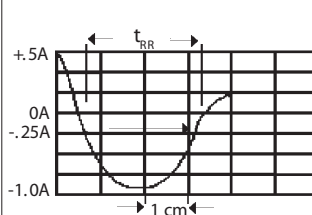
Typical Instantaneous Forward Characteristics



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%.