

### Switchmode Full Plastic Single Ultra-fast Power Rectifiers

...Designed for use in switching power supplies, inverters and as free wheeling diodes. These state-of-the-art devices have the following features:

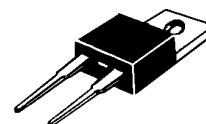
- \* High Surge Capacity
- \* Low Power Loss, High efficiency
- \* 175 Operating Junction Temperature
- \* Low Forward Voltage , High Frequency
- \* High-Switching Speed 21(typ.) Nanosecond Recovery Time
- \* Plastic Material used Carries Underwriters Laboratory



\* In compliance with EU RoHs 2002/95/EC directives

**ULTRA FAST  
RECTIFIERS**

**8 AMPERES  
600 VOLTS**



**TO-220A**

### MAXIMUM RATINGS

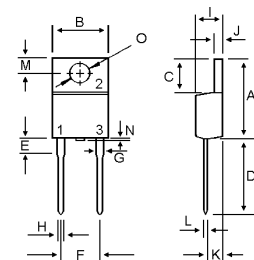
Characteristic	Symbol	UF08A60	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	420	V
Average Rectifier Forward Current	$I_{F(AV)}$	8.0	A
Peak Repetitive Forward Current (Rate $V_R$ , Square Wave, 20kHz, $T_C=125^\circ$ )	$I_{FM}$	8.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase, 60Hz)	$I_{FSM}$	150	A
Operating and Storage Junction Temperature Range	$T_J$ , $T_{stg}$	-65 to +175	

### THERMAL RESISTANCES

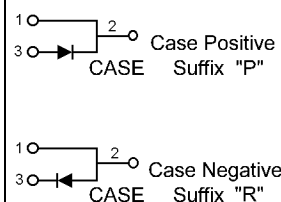
Typical Thermal Resistance junction to case	$R_{\theta jc}$	4.2	/w
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### ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	Min	Type	Max.	Unit
Maximum Instantaneous Forward Voltage ( $I_F=8$ Amp $T_C=25^\circ$ )	$V_F$	--	1.74	2.0	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=25^\circ$ ) (Rated DC Voltage, $T_C=100^\circ$ )	$I_R$	--	--	25 5	$\mu$ A mA
Reverse Recovery Time ( $I_F=0.5$ A, $I_R=1.0$ , $I_{rr}=0.25$ A)	$T_{rr}$	--	16	25	ns



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	5.02	6.52
D	13.06	14.62
E	3.57	4.07
F	4.84	5.32
G	1.12	1.36
H	0.72	0.96
I	4.22	4.98
J	1.14	1.38
K	2.20	2.98
L	0.33	0.55
M	2.48	2.98
N	---	1.00
O	3.70	3.90



# UF08A60

FIG-1 TYPICAL FORWARD CHARACTERISITICS

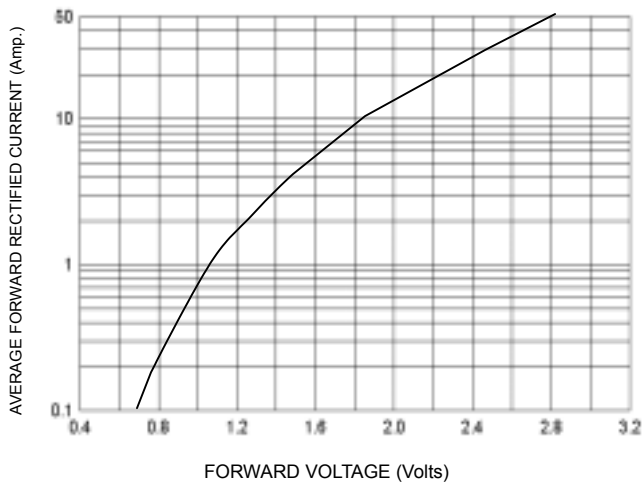


FIG-2 FORWARD CURRENT DERATING CURVE

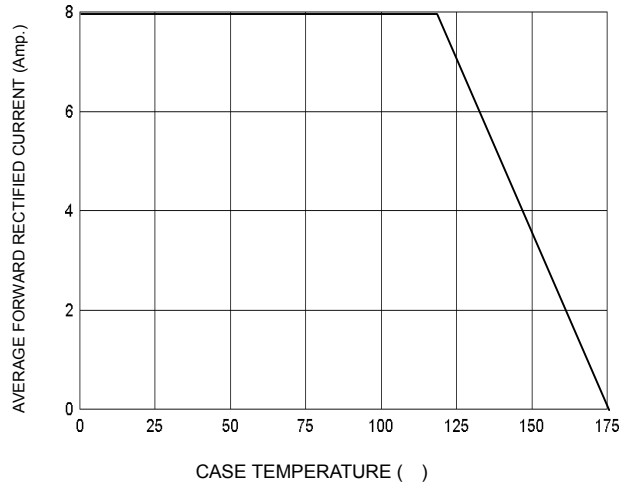


FIG-3 TYPICAL REVERSE CHARACTERISTICS

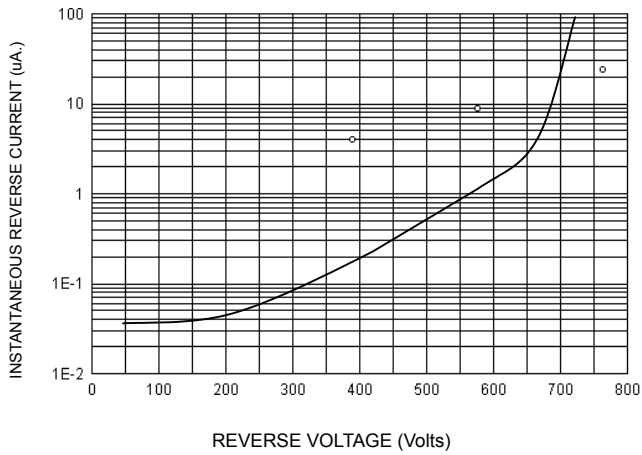


FIG-4 PEAK FORWARD SURGE CURRENT

