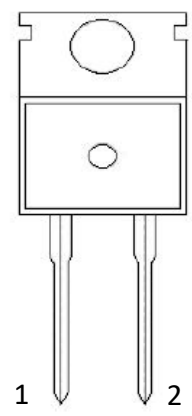


HYPERFAST RECOVERY RECTIFIERS		REVERSE VOLTAGE 600 Volts FORWARD CURRENT 8 Amperes	
<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>• Low forward voltage drop</li> <li>• Excellent high temperature stability</li> <li>• Fast switching capability</li> <li>• Low reverse current</li> <li>• High Current Capability and Low Forward Voltage Drop</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• Case: TO-220AC</li> <li>• Polarity: Cathode Band</li> </ul>		<p><b>TO-220AC</b></p>  <p>1 2</p> <p>Pin 1 ←   → Pin 2</p> <p>Dimensions in inches and (millimeters)</p>	
<p><b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>  Ratings at 25 °C ambient temperature unless otherwise specified.  Single phase, half wave, 60Hz, resistive or inductive load.  For capacitive load, derate current by 20%</p>			
Characteristics	Symbol	UF08S06ST	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS Reverse Voltage	$V_{RMS}$	420	V
Maximum DC blocking voltage	$V_{DC}$	600	V
Maximum Instantaneous Forward Voltage at 8A	$V_F$	2.3	V
Maximum DC Reverse Current @TA=25°C at Rated DC Blocking Voltage @TA=125°C	$I_R$	2 100	μA
Maximum Average Forward Rectified Current	$I_F$	8	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	80	A
Maximum Reverse Recovery Time ( $I_F=0.5A, I_R=1A, I_{rr}=0.25A$ )	$T_{rr}$	25	nS
Typical Junction Capacitance	$C_J$	25	pF
Typical Thermal Resistance Junction to Case	$R_{θJC}$	3	°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	°C

## Rating and Characteristic Curves

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

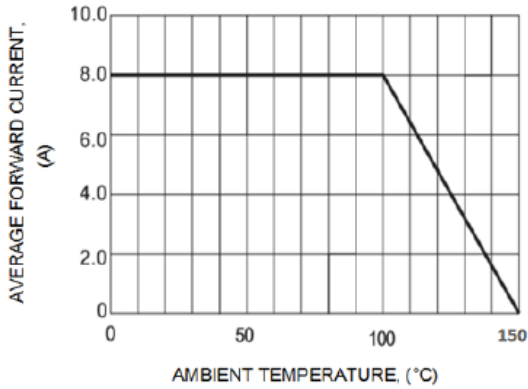


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

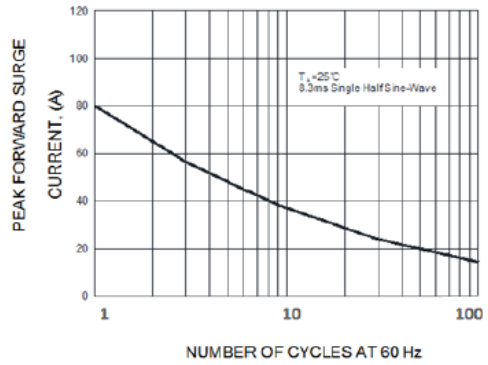


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

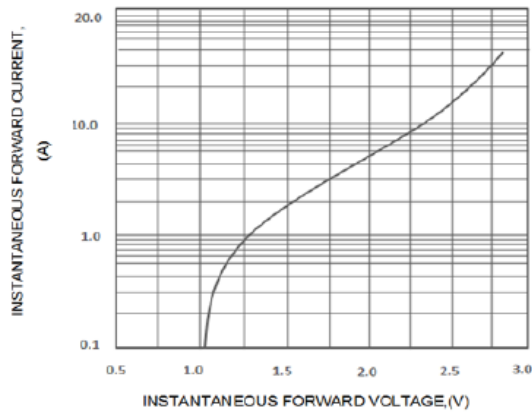


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

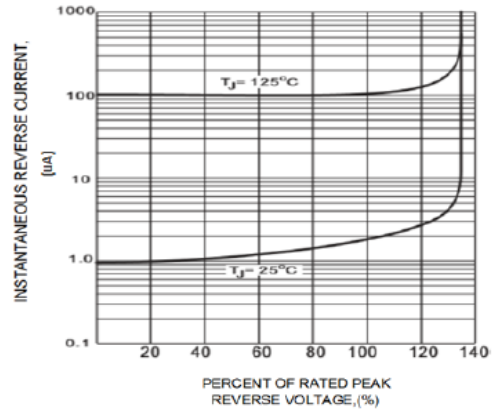


FIG. 5-TYPICAL JUNCTION CAPACITANCE

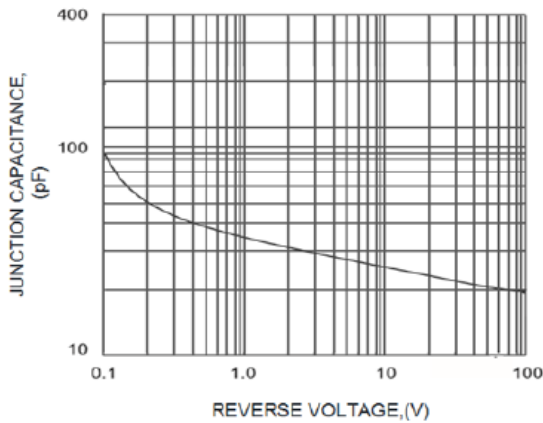
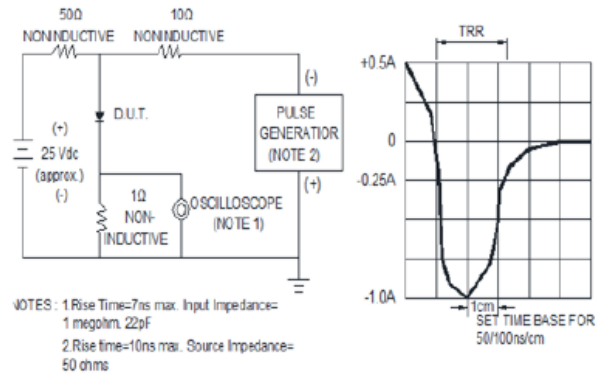
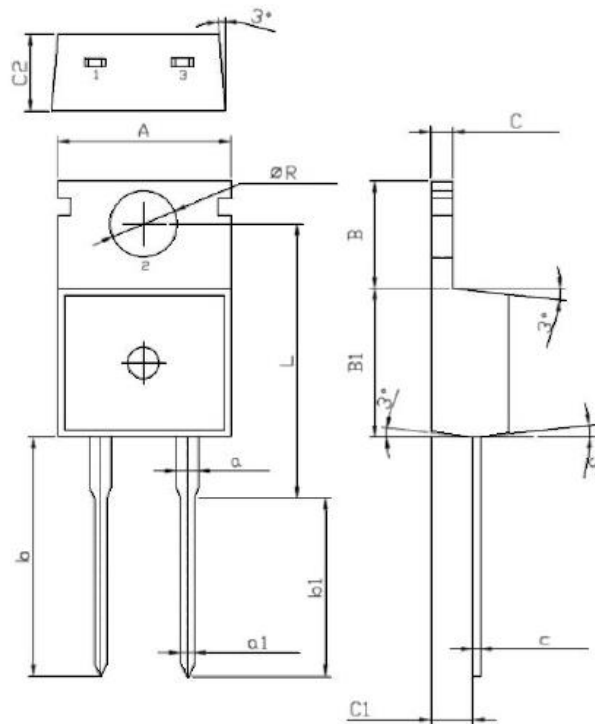


FIG. 6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



**PACKAGE DIMENSION**

TO-220AC (unit: mm)



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	9.8	10.2	B	6.3	6.7
R	3.56	3.64	B1	9.0	9.4
L	15.7	16.1	C1	2.2	2.6
b	12.6	13.6	C	1.2	1.4
b1	9.6	10.6	c	0.4	0.6
a	1.22	1.32	C2	4.3	4.7
a1	0.7	0.9			