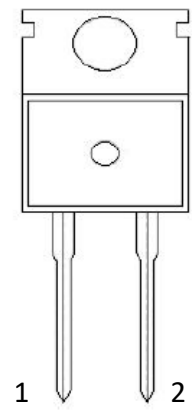


HYPERFAST RECOVERY RECTIFIERS	REVERSE VOLTAGE 600 Volts FORWARD CURRENT 10 Amperes
<p>FEATURES</p> <ul style="list-style-type: none"> • Low forward voltage drop • Excellent high temperature stability • Fast switching capability • Low reverse current • High Current Capability and Low Forward Voltage Drop <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: TO-220AC • Polarity: Cathode Band 	<p>TO-220AC</p>  <p>1 2</p> <p>Pin 1 ← Pin 2</p> <p>Dimensions in inches and (millimeters)</p>

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
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%

Characteristics	Symbol	UF10S06ST	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 10A	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	10	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	110	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	45	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

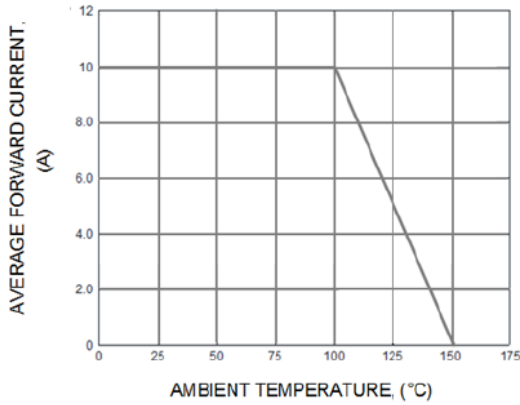


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

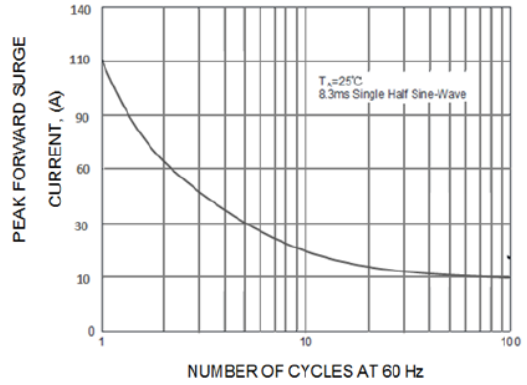


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

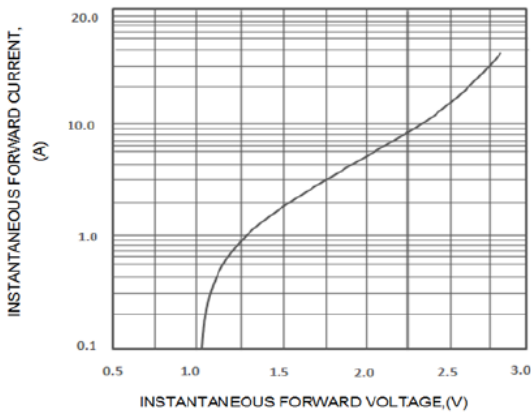


FIG.4-TYPICAL REVERSE CHARACTERISTICS

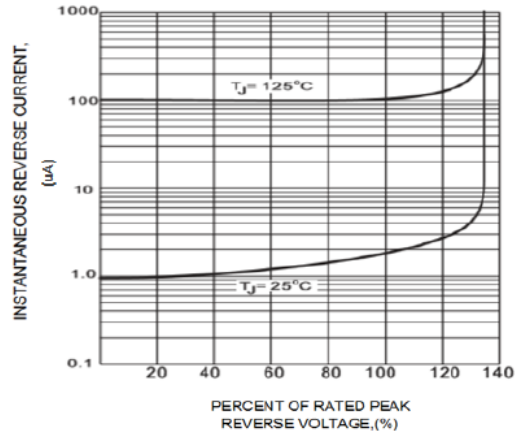


FIG.5-TYPICAL JUNCTION CAPACITANCE

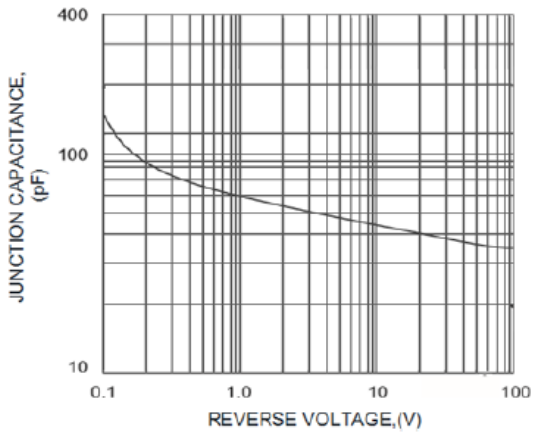
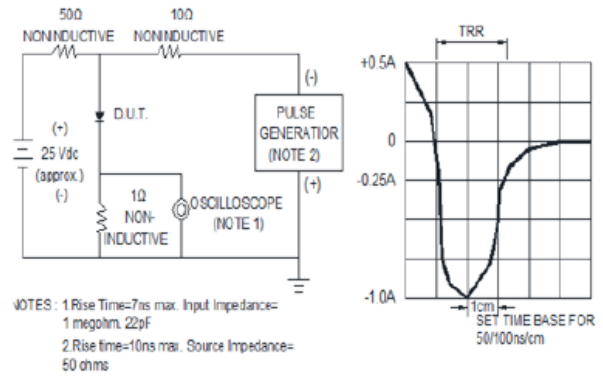
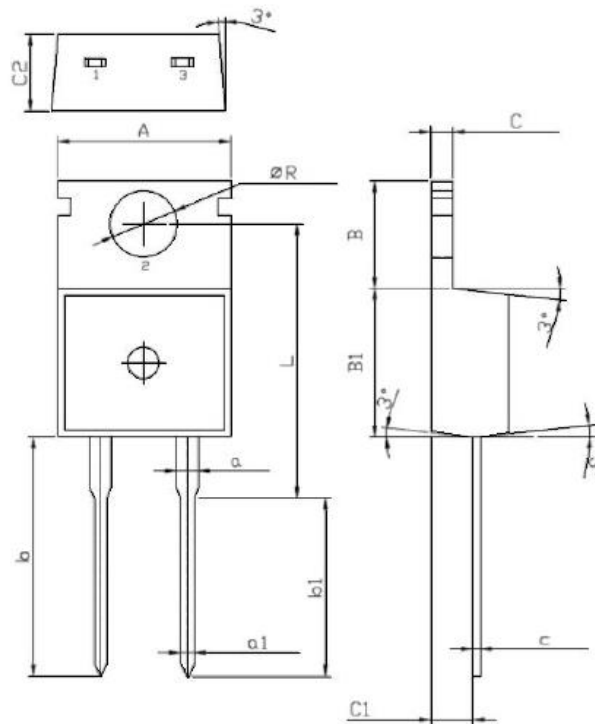


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



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			