HYPERFAST RECOVERY RECTIFIERS	REVERSE VOLTAGE 600 Volts FORWARD CURRENT 30 Amperes

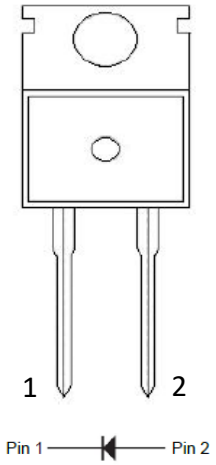
FEATURES

- Low forward voltage drop
- Excellent high temperature stability
- Fast switching capability
- Low reverse current
- High Current Capability and Low Forward Voltage Drop

MECHANICAL DATA

- Case: TO-220AC
- Polarity: Cathode Band

TO-220AC



Dimensions in inches and (millimeters)

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	UF30S06ST	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 30 A	V_F	2.3	V
Maximum DC Reverse Current @TA=25°C at Rated DC Blocking Voltage @TA=125°C	I_R	10 200	μA
Maximum Average Forward Rectified Current	I_F	30	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300	A
Maximum Reverse Recovery Time (I_F=0.5A,I_R=1A, Irr=0.25A)	Trr	35	nS
Typical Junction Capacitance	C_J	85	pF
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	1.5	°C/W
Junction and StorageTemperature Range	T_J, T_{STG}	-55 to +150	°C

Rating and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

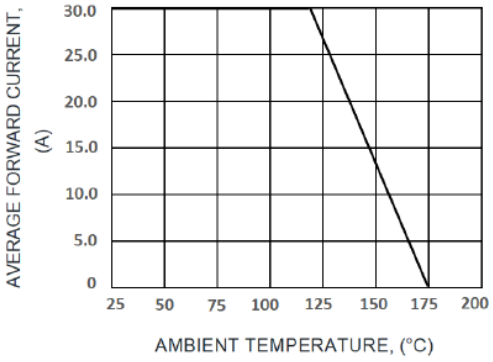


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

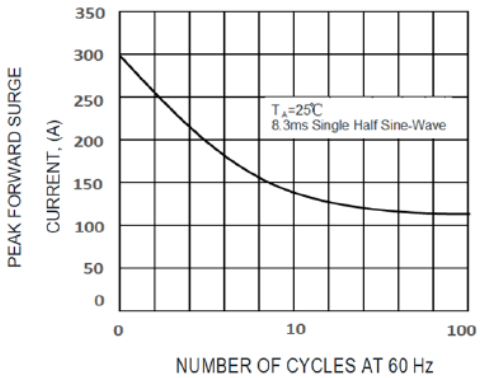


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

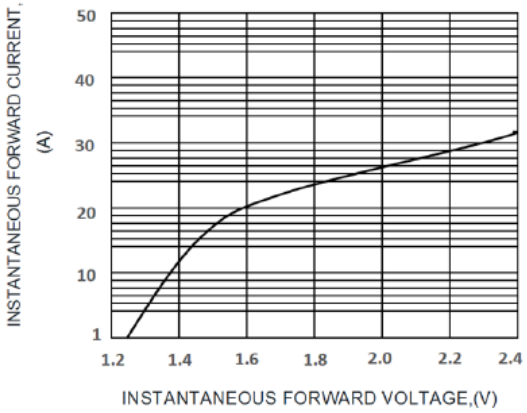


FIG.4-TYPICAL REVERSE CHARACTERISTICS

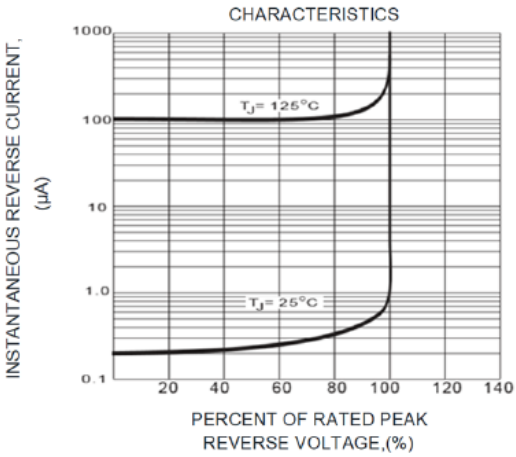
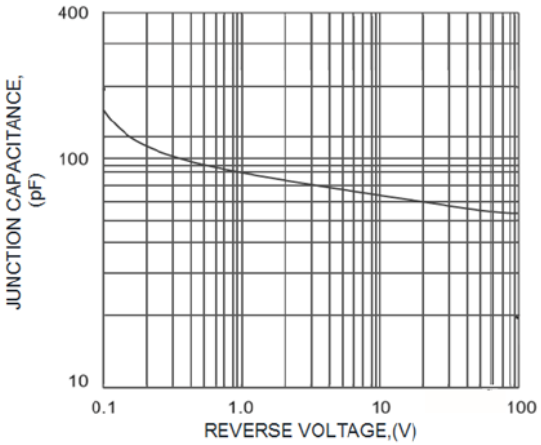
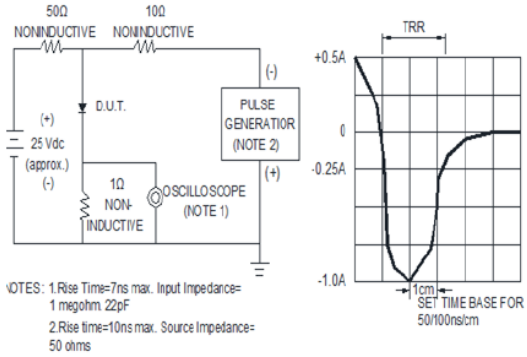


FIG.5-TYPICAL JUNCTION CAPACITANCE

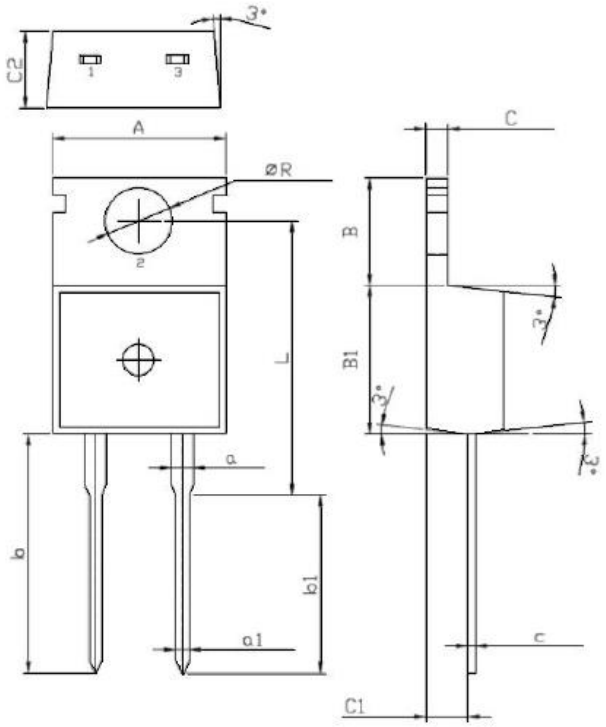


F1G.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



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			