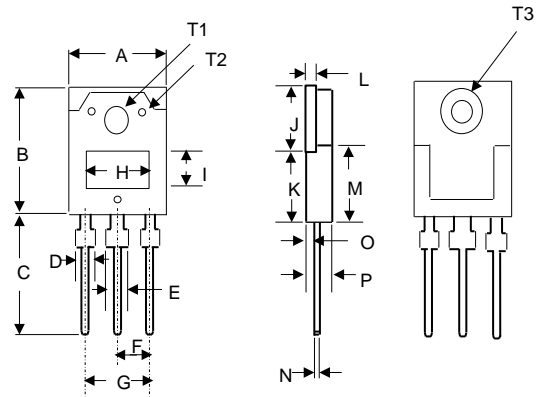
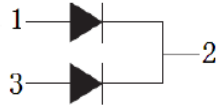


### Features

- \* Dual rectifier construction, positive center-tap
- \* Superfast recovery time, high voltage
- \* Low forward voltage, high current capability
- \* Low thermal resistance
- \* Low power loss, high efficiency

RoHS  
COMPLIANT



DIM	TO-3P			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.61	0.62	15.50	15.70
B	0.78	0.79	19.70	20.10
C	0.79	0.81	20.10	20.50
D	0.08 Typ.		2.00 Typ.	
E	0.12 Typ.		3.00 Typ.	
F	0.21 Typ.		5.45 Typ.	
G	0.43 Typ.		10.9 Typ.	
H	0.43	0.43	10.80	11.00
I	0.35	0.35	8.80	9.00
J	0.27	0.28	6.85	7.15
K	0.50	0.51	12.75	13.05
L	0.06	0.06	1.49	1.51
M	0.54	0.55	13.70	14.00
N	0.02	0.02	0.59	0.61
O	0.05	0.06	1.32	1.48
P	0.19	0.19	4.70	4.90
T1	0.14 Typ.		3.5 Typ.	
T2	0.06 Typ.		1.50 Typ.	
T3	0.28 Typ.		7.00 Typ.	

### Mechanical Data

- \* Case: TO-3P
- \* Molding compound, UL flammability classification rating 94V-0
- \* Polarity: As marked
- \* Weight: 6.1g (approximately)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

PARAMETER		SYMBOL	UG6005PT	UNIT
Maximum repetitive peak reverse voltage		$V_{RRM}$	300	V
Maximum RMS voltage		$V_{RMS}$	210	V
Maximum DC blocking voltage		$V_{DC}$	300	V
Maximum average forward rectified current		$I_{F(AV)}$	60	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load		$I_{FSM}$	300	A
Maximum instantaneous forward voltage (Note 1)	$I_F=30A$	$V_F$	1.25	V
Maximum reverse current @ rated VR	$T_J=25^\circ C$	$I_R$	5	$\mu A$
	$T_J=125^\circ C$		600	
Maximum reverse recovery time (Note 2)		$t_{rr}$	25	ns
Typical thermal resistance		$C_J$	1.0	$^\circ C/W$
Operating junction temperature range		$T_J$	- 55 to +175	$^\circ C$
Storage temperature range		$T_{STG}$	- 55 to +175	$^\circ C$

Note 1: Pulse test with PW=300  $\mu s$ , 1% duty cycle

Note 2: Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$ .

### Ratings and Characteristic Curves

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

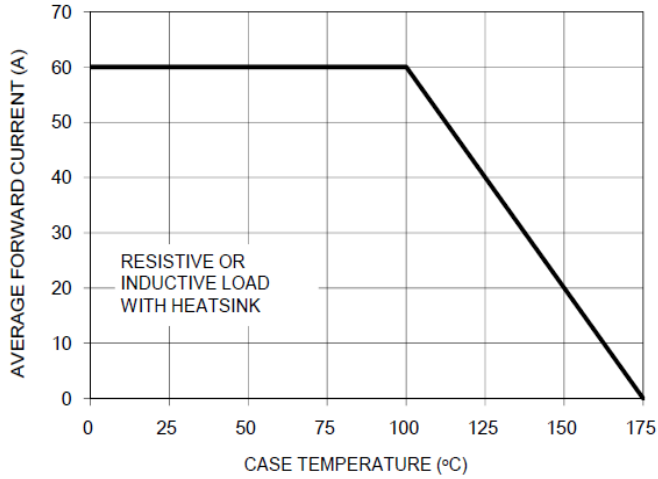


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

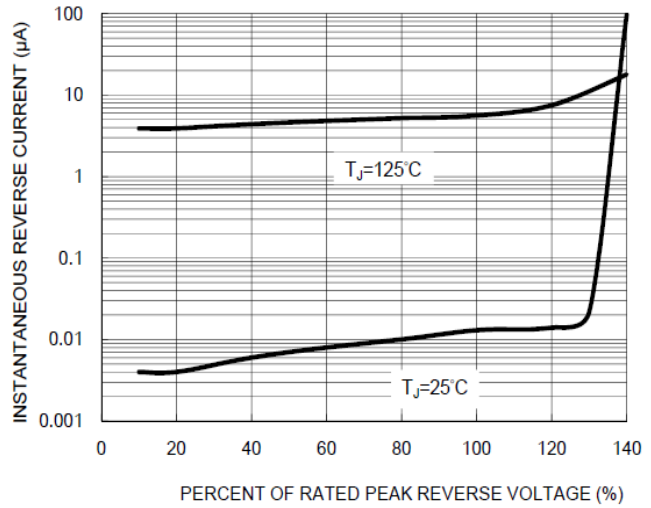


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

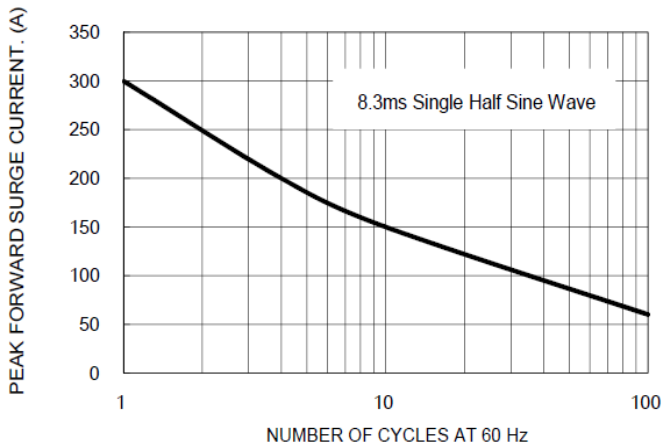


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

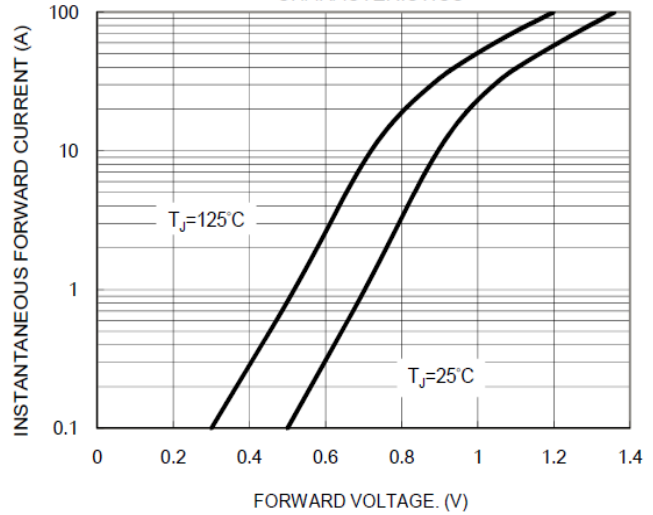


FIG. 5 TYPICAL JUNCTION CAPACITANCE

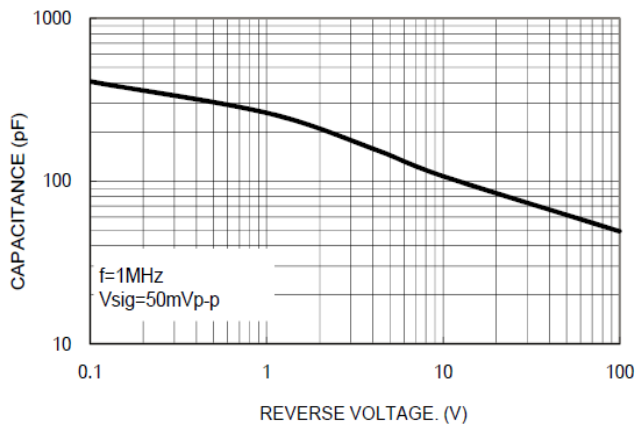
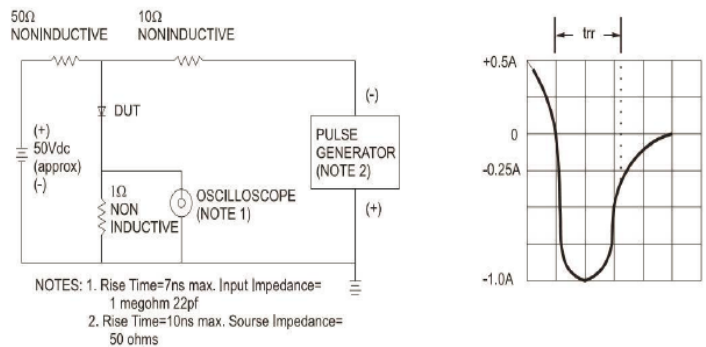


FIG. 6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





## UG6005PT *Ultra Fast Rectifier*

### Ordering Information

Part No.	Package	Packing Code	Packing
UG6005PT	TO-3P	TXB	30pcs/Tube

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