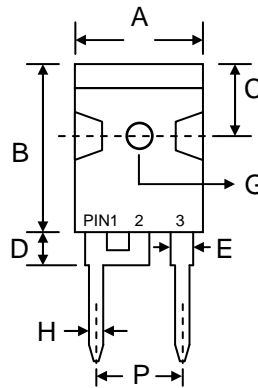


Features

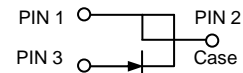
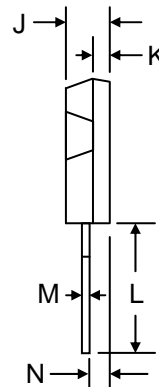
- Planar Die Construction
- Superfast 35nS and 50nS Recovery Time
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- Soft Recovery Characteristics
- Epoxy Meets UL 94V-0 Classification
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

Mechanical Data

- Case: TO-247AC, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 1.2 N.m Max.
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**



TO-247AC		
Dim	Min	Max
A	15.30	15.90
B	20.30	20.60
C	5.30	5.98
D	4.35	4.65
E	1.80	2.20
G	3.50 Ø	3.65 Ø
H	1.00	1.40
J	4.85	5.15
K	1.90	2.10
L	20.30	21.00
M	0.50	0.70
N	2.20	2.60
P	10.70	11.10
All Dimensions in mm		



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	RURG3020	RURG3040	RURG3060	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	200	400	600	V
Working Peak Reverse Voltage	V _{VRM}				
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _{R(RMS)}	140	280	420	V
Average Rectified Output Current @T _C = 130°C	I _o	30			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	325			A
Forward Voltage @I _F = 30A	V _{FM}	1.1	1.3	1.5	V
Peak Reverse Current @T _C = 25°C	I _{RM}	250			µA
At Rated DC Blocking Voltage @T _C = 100°C		1.0			
Reverse Recovery Time (Note 1)	t _{rr}	35	50		nS
Typical Junction Capacitance (Note 2)	C _J	180		150	pF
Thermal Resistance Junction to Case	R _{JC}	1.2			°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175			°C

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

RURG3020 – RURG3060

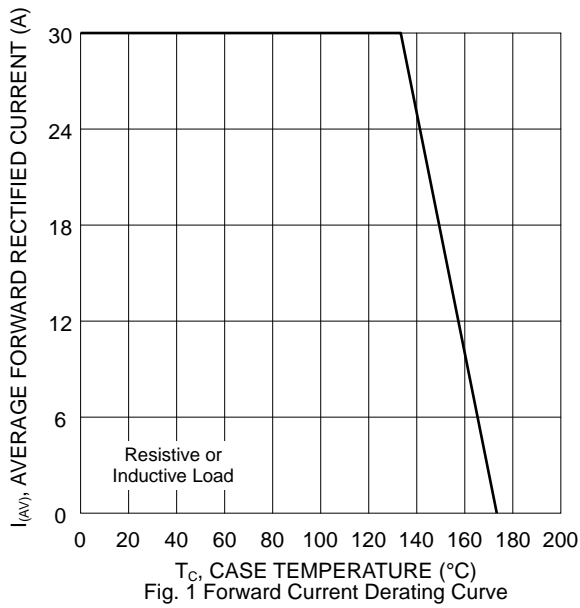


Fig. 1 Forward Current Derating Curve

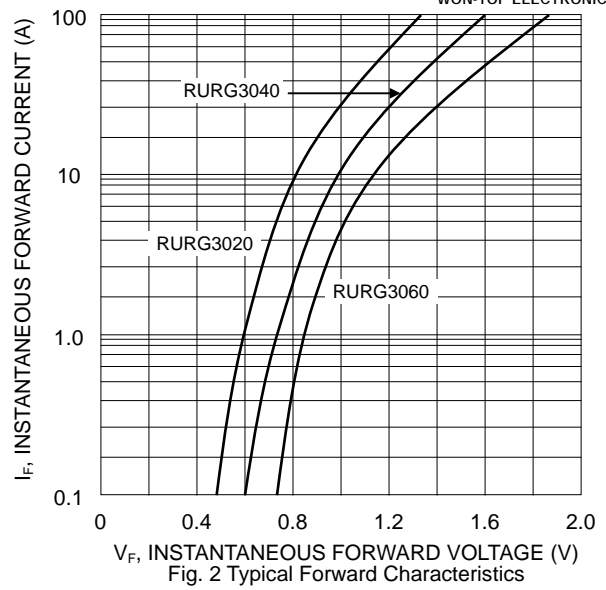


Fig. 2 Typical Forward Characteristics

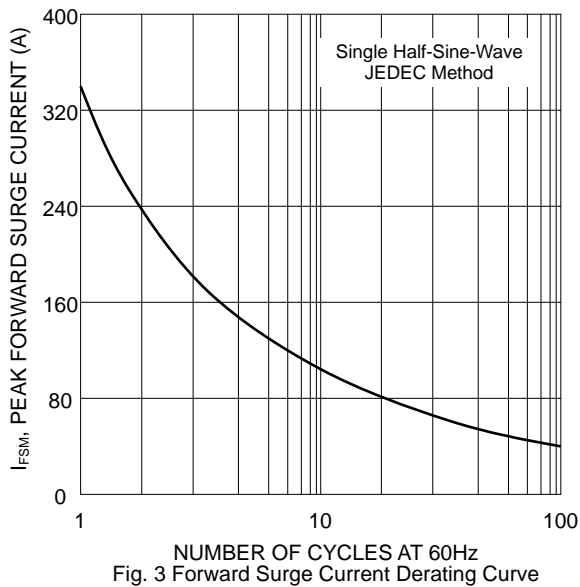


Fig. 3 Forward Surge Current Derating Curve

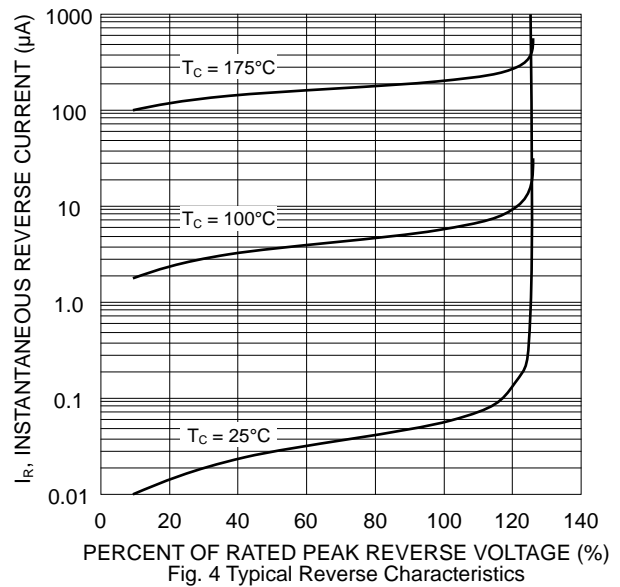


Fig. 4 Typical Reverse Characteristics

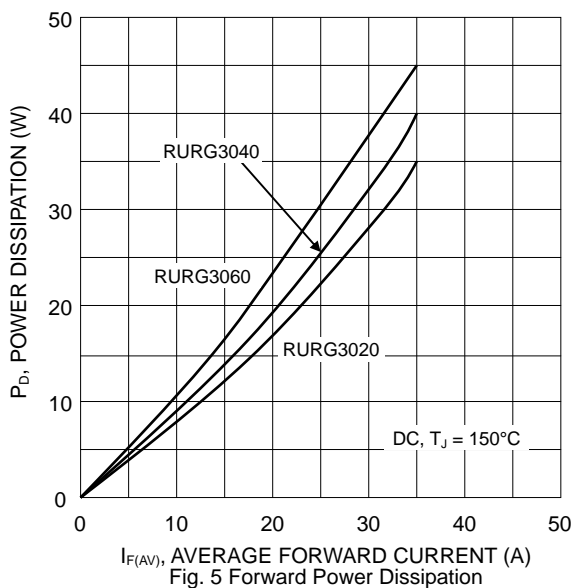


Fig. 5 Forward Power Dissipation

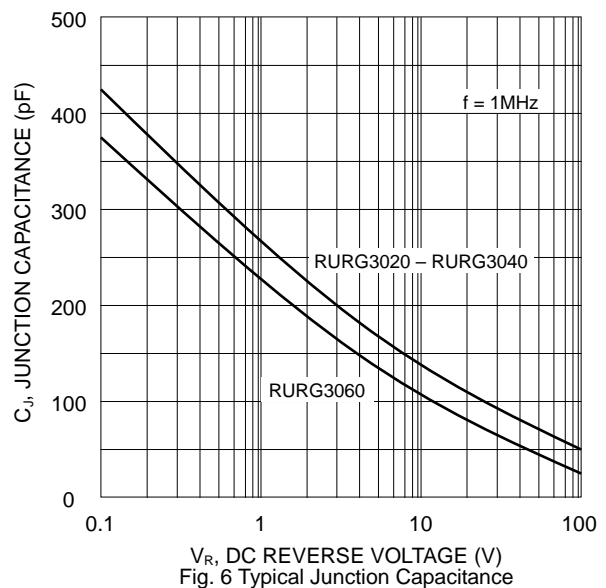
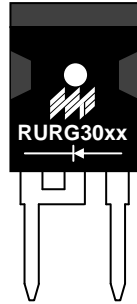


Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



RURG30xx = Device Number
 xx = 20, 40, or 60
 Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

Tube Size L x W x H (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
505 x 46 x 6.5	30	520 x 145 x 95	1,200	540 x 306 x 115	2,400	18.0

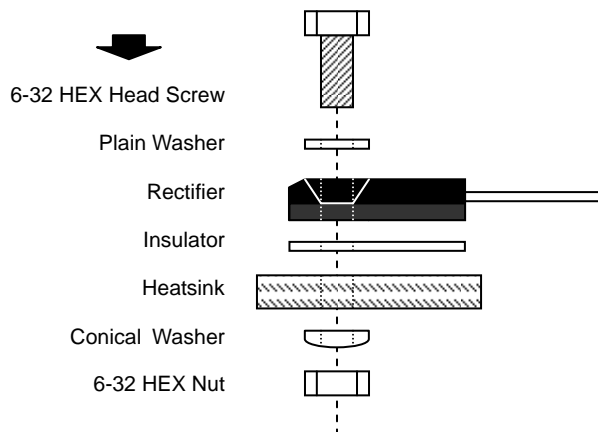
Note: 1. Anti-static tube, water clear color.

RECOMMENDED SCREW MOUNTING ARRANGEMENT

Recommended isolated mounting when screw is at heatsink potential. 6-32 hardware is used.

A conical washer should be used to apply proper force to the device. Screw should not be tightened with any type of air-forced torque or equipment that may cause high impact on device package.

The interface should apply a layer of thermal grease or a highly conductive thermal pad for better heat dissipation.



ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
RURG3020	TO-247AC	30 Units/Tube
RURG3040	TO-247AC	30 Units/Tube
RURG3060	TO-247AC	30 Units/Tube

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, RURG3020-LF.**

WON-TOP ELECTRONICS and  are registered trademarks of Won-Top Electronics Co., Ltd (WTE). WTE has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

Won-Top Electronics Co., Ltd.
No. 44 Yu Kang North 3rd Road,
Chine Chen Dist., Kaohsiung 806, Taiwan
Phone: 886-7-822-5408 or 886-7-822-5410
Fax: 886-7-822-5417
Email: sales@wontop.com
Internet: <http://www.wontop.com>

We power your everyday.