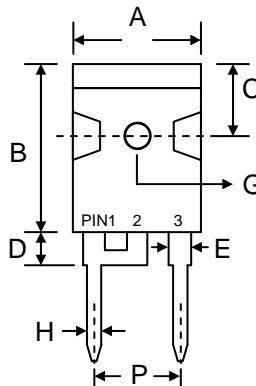


### Features

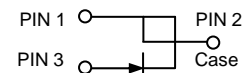
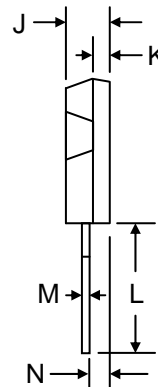
- Planar Die Construction
- Superfast Recovery Time
- Low Forward Voltage Drop
- Low Reverse Leakage Current
- Soft Recovery Characteristics
- Epoxy Meets UL 94V-0 Classification
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

### 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		

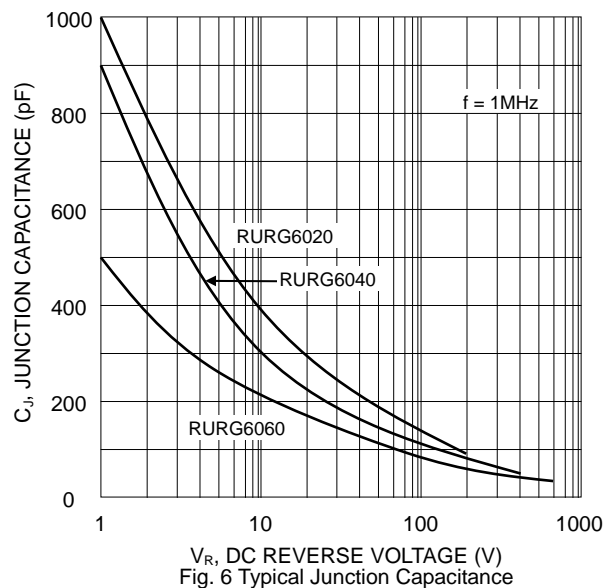
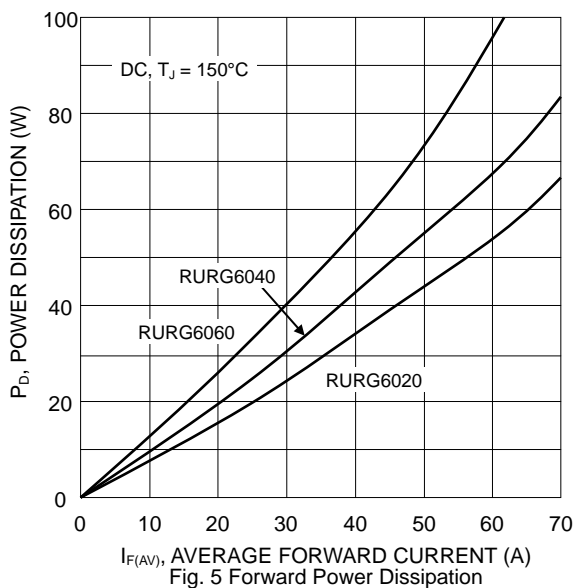
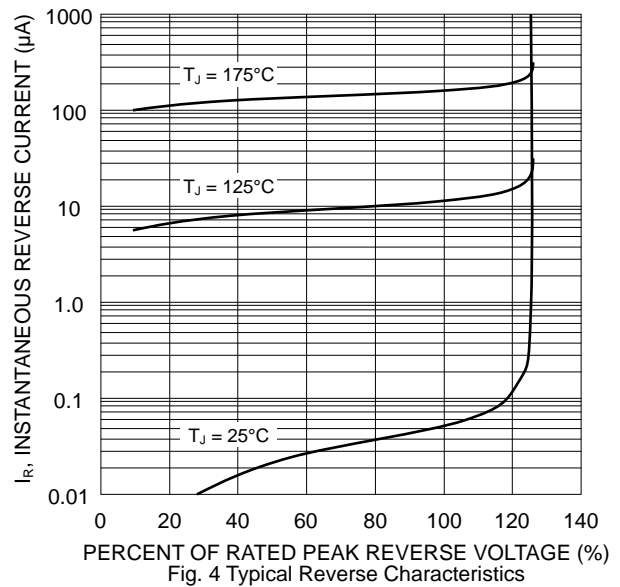
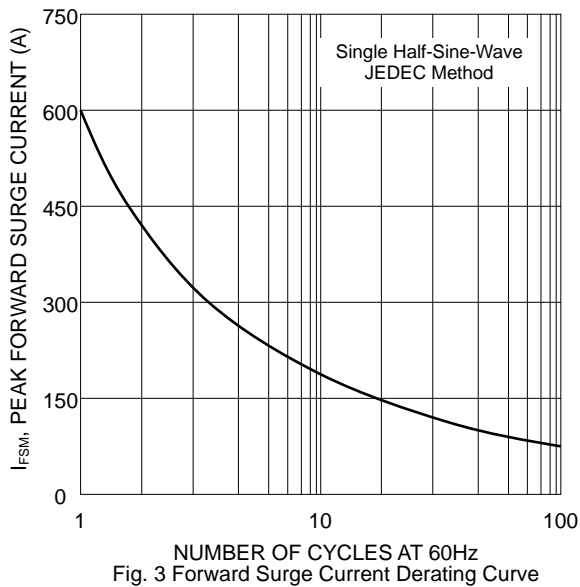
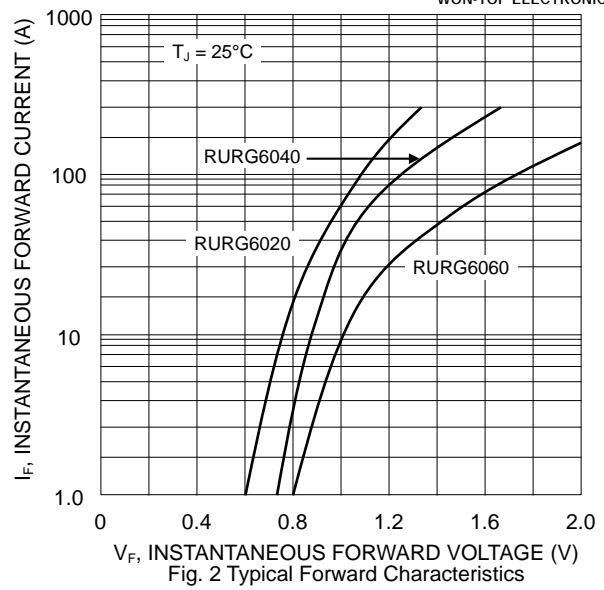
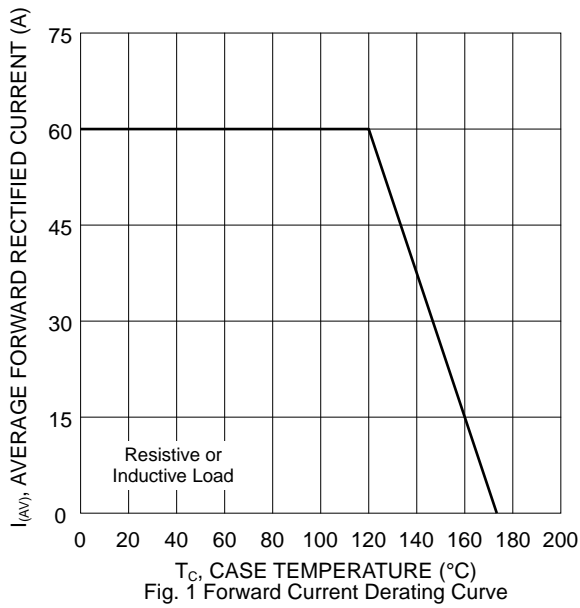


### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

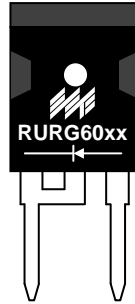
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	RURG6020	RURG6040	RURG6060	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	200	400	600	V
Working Peak Reverse Voltage	V <sub>RWM</sub>				
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	140	280	420	V
Average Rectified Output Current @T <sub>C</sub> = 120°C	I <sub>O</sub>	60			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	600			A
Forward Voltage @I <sub>F</sub> = 60A, T <sub>J</sub> = 25°C @I <sub>F</sub> = 60A, T <sub>J</sub> = 150°C	V <sub>FM</sub>	1.1 0.9	1.3 1.1	1.8 1.6	V
Peak Reverse Current @T <sub>J</sub> = 25°C At Rated DC Blocking Voltage @T <sub>J</sub> = 125°C	I <sub>RM</sub>	250 500			µA
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	35	50	60	nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	90	50	40	pF
Thermal Resistance Junction to Case	R <sub>JC</sub>	0.7			°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175			°C

Note: 1. Measured at I<sub>F</sub> = 1.0A, V<sub>R</sub> = 30V, dI<sub>F</sub>/dt = 200A/µS.  
2. Measured with rated V<sub>R</sub> at 1.0 MHz.



## MARKING INFORMATION



RURG60xx = 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

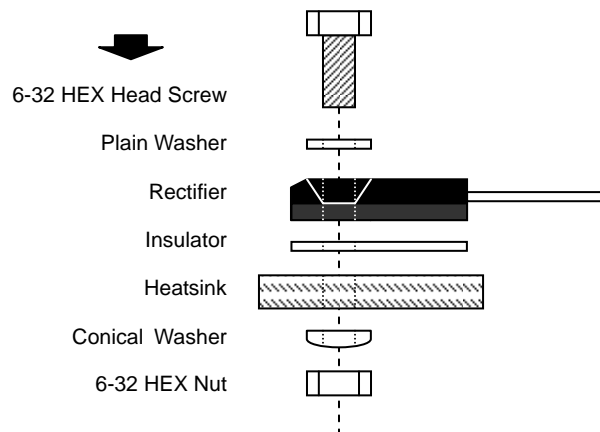
**Note:** 1. Anti-static tube, water clear color.

## 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
RURG6020	TO-247AC	30 Units/Tube
RURG6040	TO-247AC	30 Units/Tube
RURG6060	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, RURG6020-LF.**

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**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.

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