WON-TOP ELECTRONICS

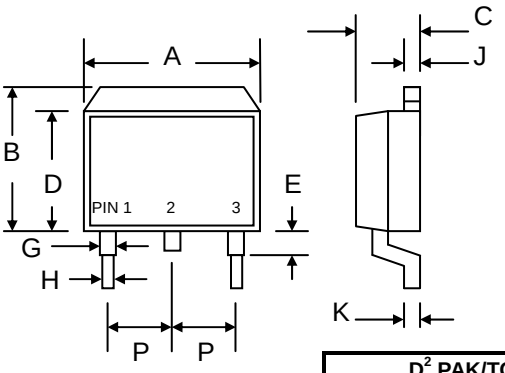
MURB3020 – MURB3060

30A SURFACE MOUNT GLASS PASSIVATED SUPERFAST RECTIFIER

RoHS Pb

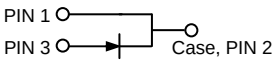
Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Super-Fast Recovery Time
- High Voltage Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in High Voltage, High Frequency Inverters, Free Wheeling, and Switching Power Supplies



Mechanical Data

- Case: D^{2}PAK/TO-263, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 1.7 grams (approx.)
- Mounting Position: Any
- Marking: Device Code, See Page 3
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



D^2 PAK/TO-263		
Dim	**Min**	**Max**
A	9.80	10.40
B	9.60	10.60
C	4.40	4.80
D	8.50	9.10
E	—	2.80
G	1.00	1.40
H	—	0.99
J	1.20	1.40
K	0.30	0.70
P	2.35	2.75
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	MURB3020	MURB3040	MURB3060	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	V
Average Rectified Output Current @T_C = 110°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 At Rated DC Blocking Voltage @T_C = 100°C	I_{RM}	250 1.0			μA mA
Reverse Recovery Time (Note 1)	t_{rr}	35	50		nS
Typical Junction Capacitance (Note 2)	C_J	175		145	pF
Thermal Resistance Junction to Ambient Thermal Resistance Junction to Case	$R_{\theta JA}$ $R_{\theta JC}$	73 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.

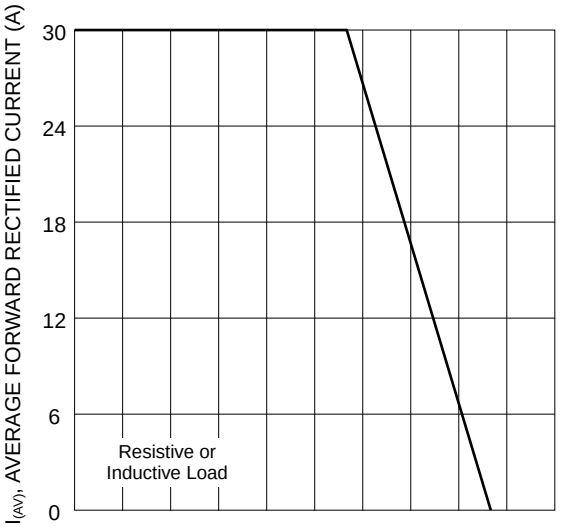


Fig. 1 Forward Current Derating Curve

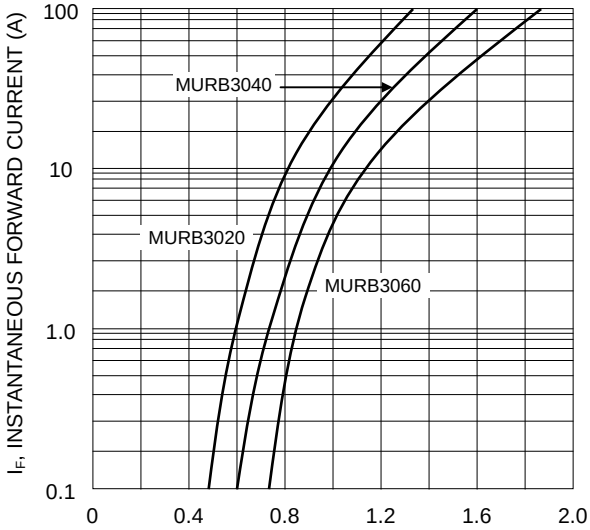


Fig. 2 Typical Forward Characteristics

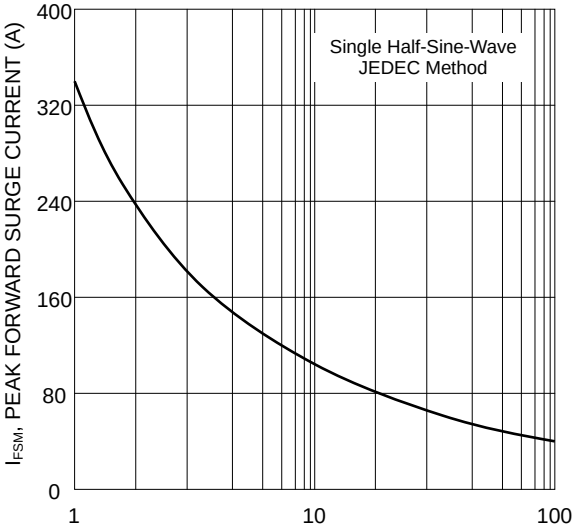


Fig. 3 Forward Surge Current Derating Curve

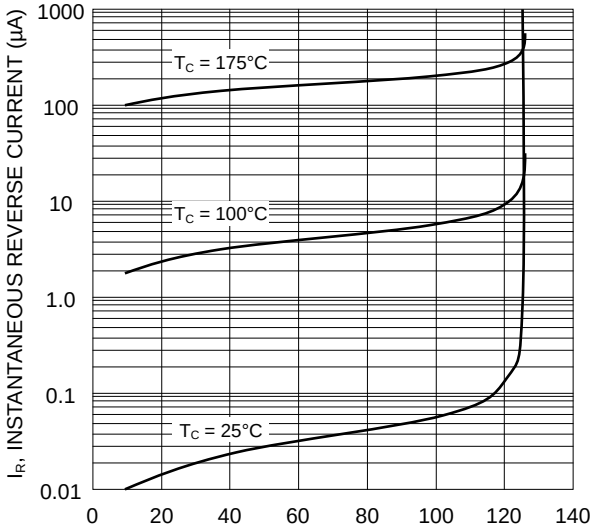


Fig. 4 Typical Reverse Characteristics

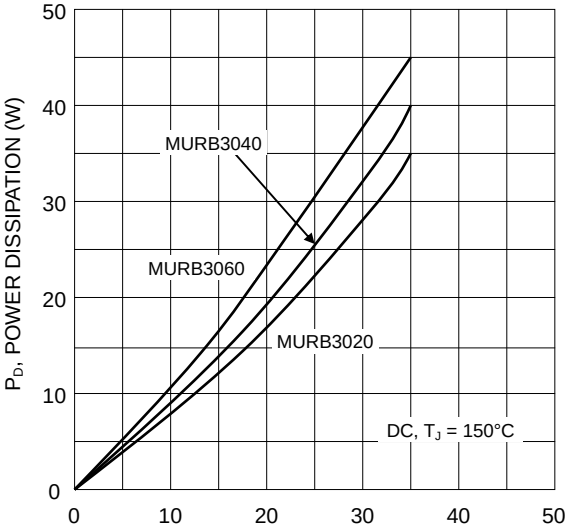


Fig. 5 Forward Power Dissipation

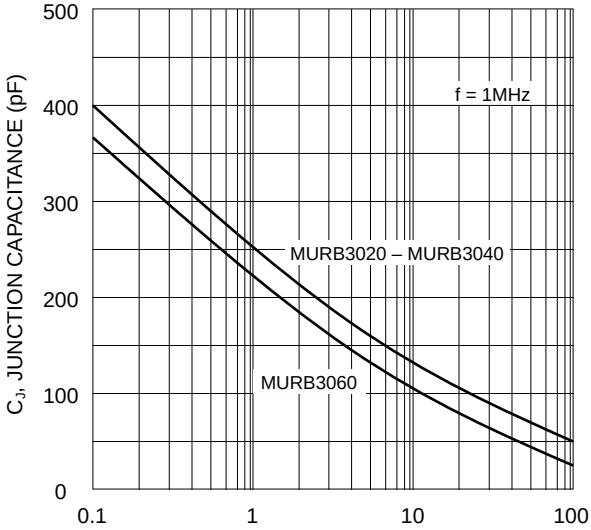
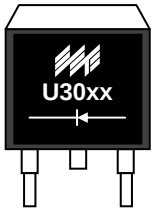


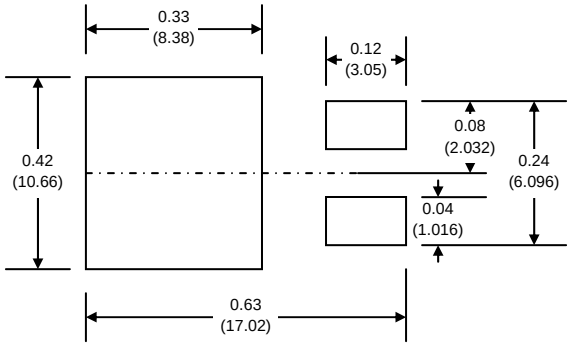
Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



U30xx = Device Number
xx = 20 (MURB3020)
40 (MURB3040)
60 (MURB3060)
Polarity = As Marked on Body

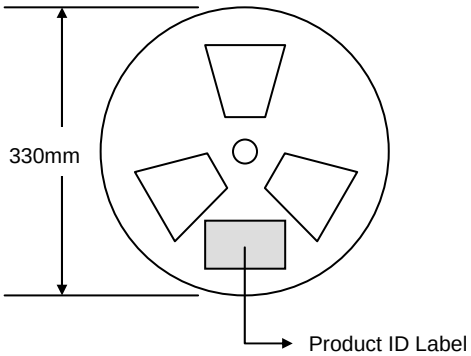
RECOMMENDED FOOTPRINT

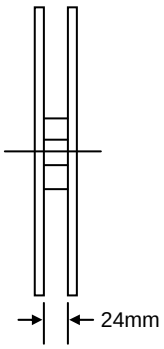


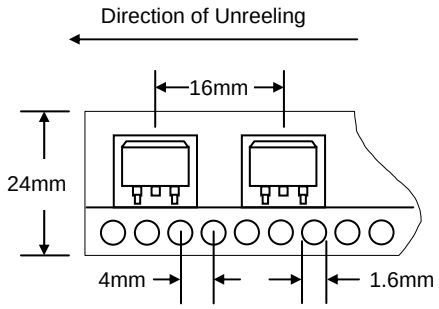
inches(mm)

PACKAGING INFORMATION

TAPE & REEL







Reel Diameter (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)
330	800	340 x 337 x 45	800	370 x 370 x 420	6,400	15.0

Note: 1. Paper reel, white or gray color.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

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ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
MURB3020-T3	D^2PAK	800/Tape & Reel
MURB3040-T3	D^2PAK	800/Tape & Reel
MURB3060-T3	D^2PAK	800/Tape & Reel

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, MURB3020-T3-LF**.

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We power your everyday.