

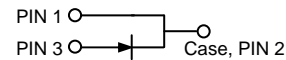
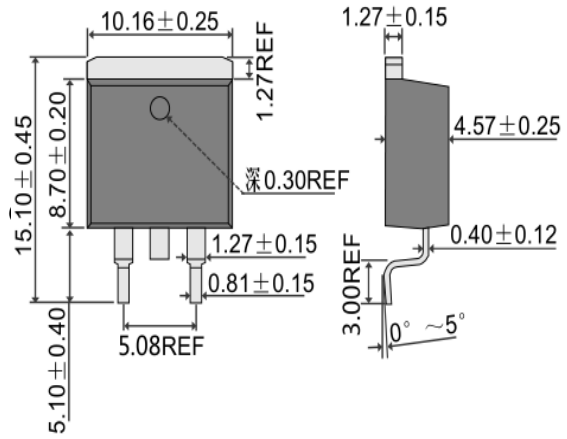
Features

- Fred Chip Planar 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: D²PAK/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**

D²PAK/TO-263



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	V _{RRM}				V
Working Peak Reverse Voltage	V _{RWM}	200	400	600	
DC Blocking Voltage	V _R				
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	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	175		145	pF
Thermal Resistance Junction to Ambient	R _{JA}	73			°C/W
Thermal Resistance Junction to Case	R _{JC}	1.2			
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.



MURB3020 – MURB3060

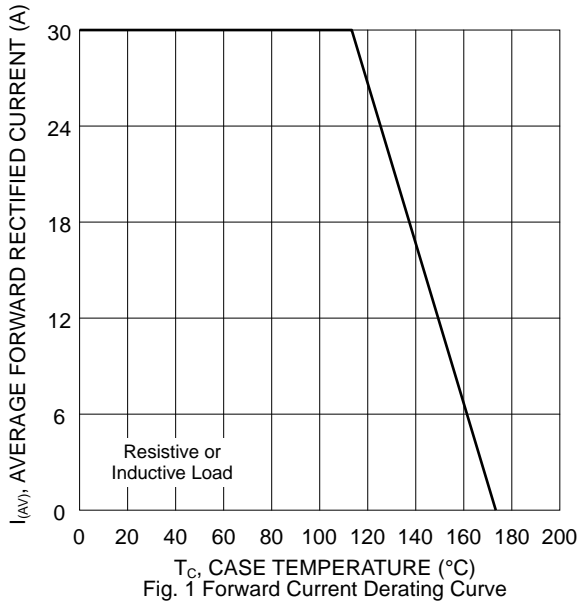


Fig. 1 Forward Current Derating Curve

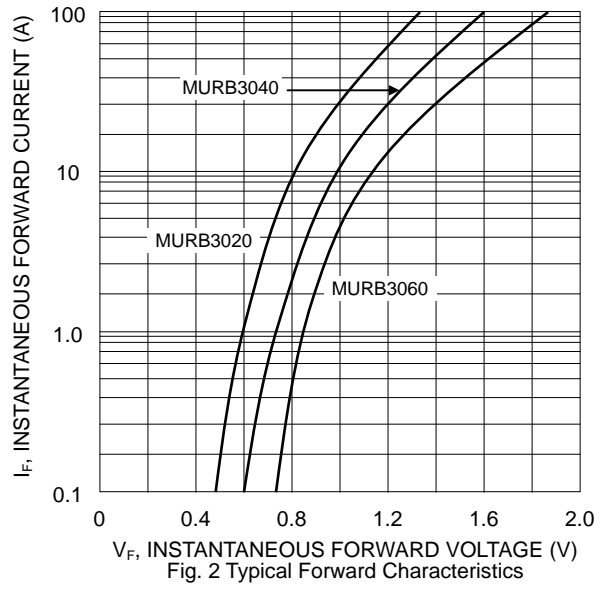


Fig. 2 Typical Forward Characteristics

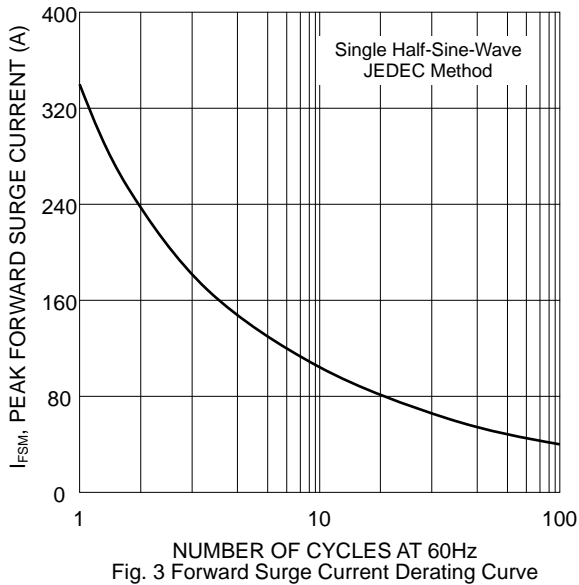


Fig. 3 Forward Surge Current Derating Curve

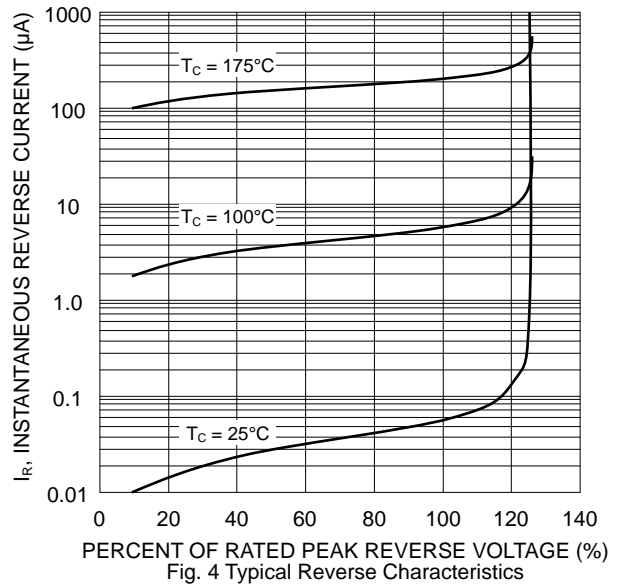


Fig. 4 Typical Reverse Characteristics

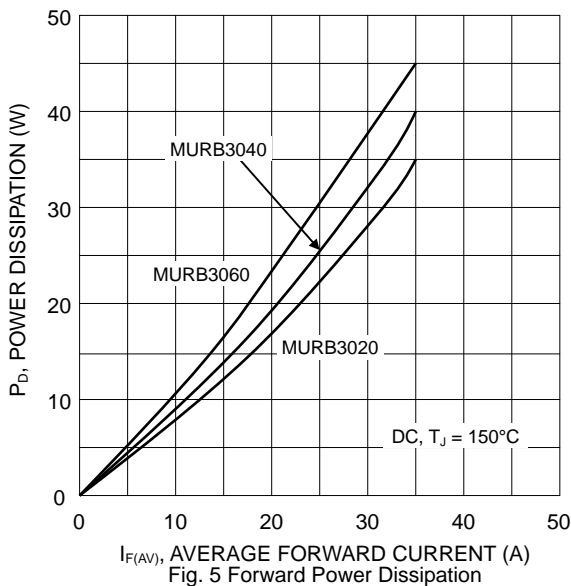


Fig. 5 Forward Power Dissipation

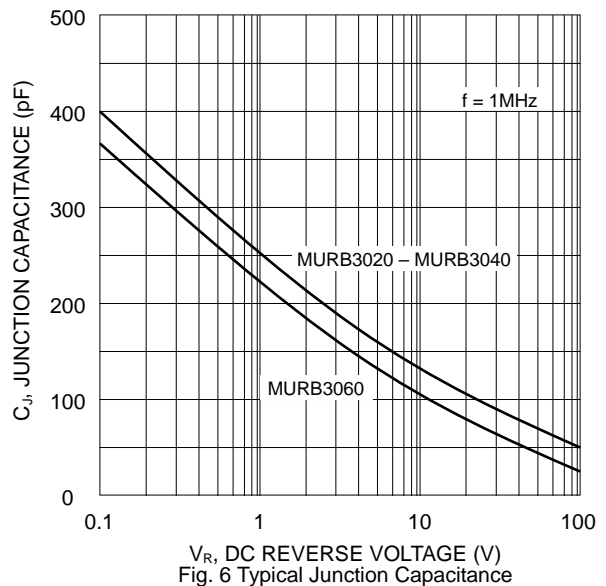
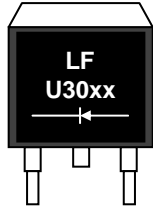


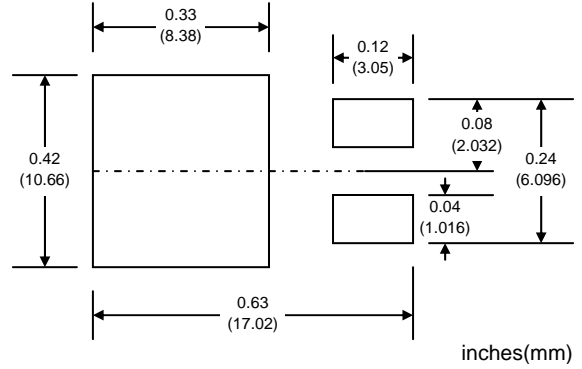
Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



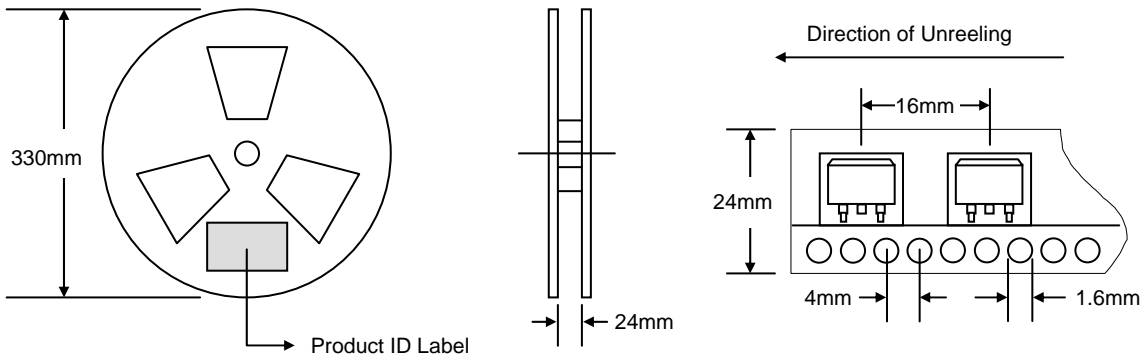
U30xx = Device Number
 xx = 20 (MURB3020)
 40 (MURB3040)
 60 (MURB3060)
 Polarity = As Marked on Body

RECOMMENDED FOOTPRINT



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