MURB860

Ultrafast Rectifier

General Description

MURB860 Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Product Summary

V_{RRM}	V_F	$I_{F(AV)}$
600V	1.6V	8A

Features

- Low reverse leakage
- Super fast switching for high efficiency
- High forward surge current capability
- RoHS Compliant

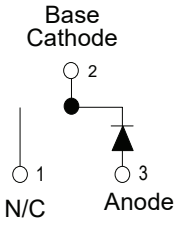
Applications

- Continuous Current Mode (CCM) Power Factor Correction (PFC)
- Half-bridge/full-bridge switched-mode power supplies

TO-263 Pin Configuration



TO-263
(MURB860)



Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
V_{RRM}	Peak Repetitive Reverse Voltage	600	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	8	A
T_{RR}	Reverse Recovery Time(I_F=0.5A ,I_R=1A ,I_{REC}=0.25A)	≤35	nS
I_{FSM}	Forward Peak Surge Current(Rated Load 8.3ms Half Mssine Wave-According to JEDEC Method)	100x1	A
T_J	Operating Junction Temperature	150	℃
T_{STG}	Storage Temperature	-55 to 150	℃

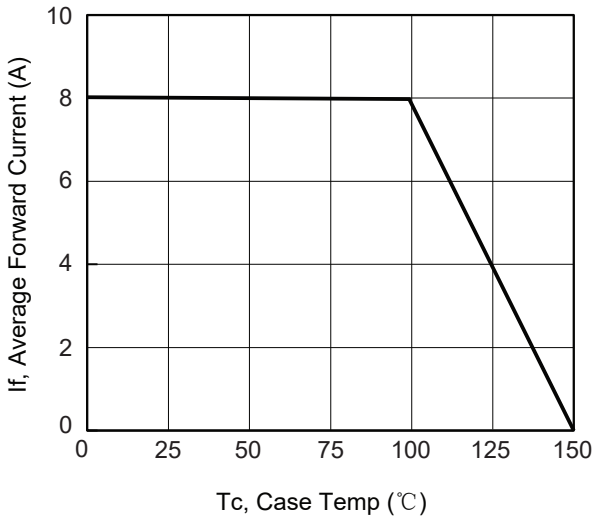
Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case(Per Leg)	2	---	℃/W

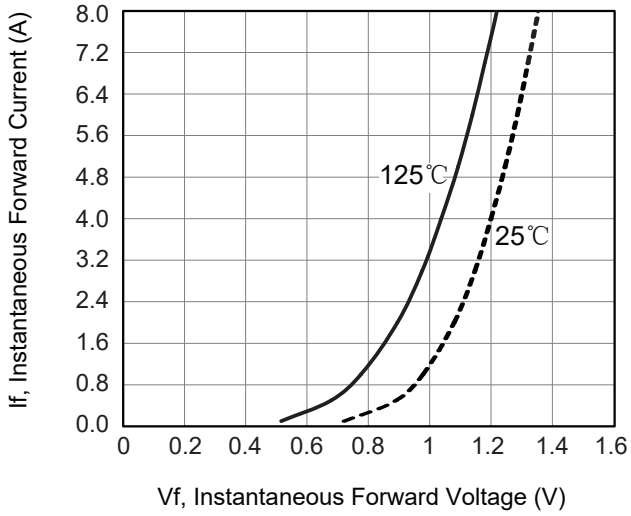
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_F	Forward Voltage Drop per diode	I_F=8A, T_J=25℃ (IFAV=8A*1)	---	1.35	1.6	V
		I_F=8A, T_J=125℃ (IFAV=8A*1)	---	---	1.45	
I_R	Reverse Leakage Current per diode	V_R=600V , TJ=25℃	---	---	0.01	mA
		V_R=600V , TJ=125℃	---	---	0.10	

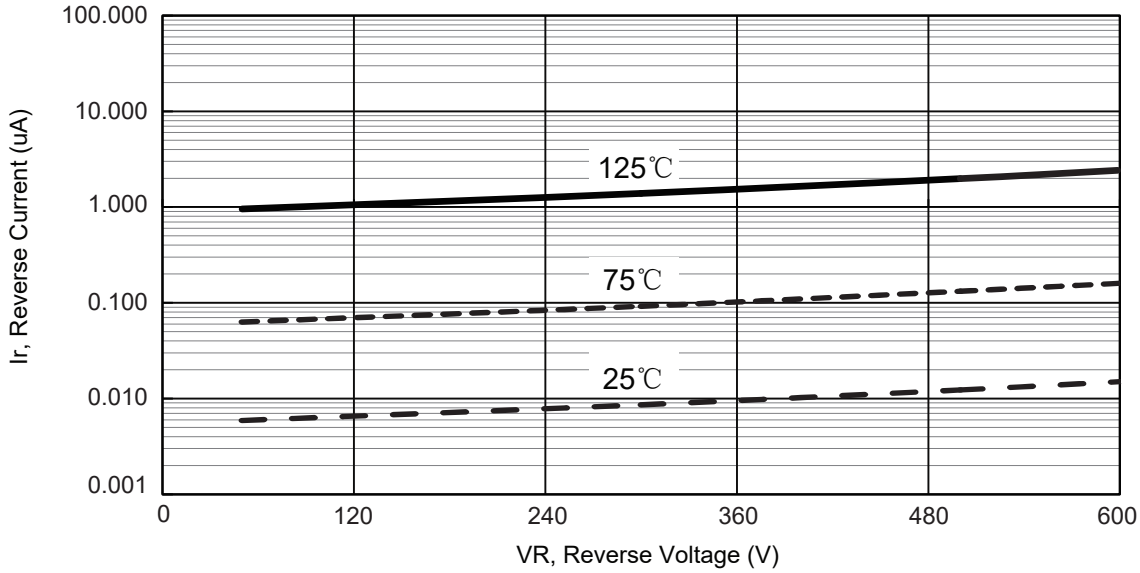
Characteristic Curves



Current derating curve, perelement



The forward voltage and forward current curve



The reverse leak current and the reverse voltage (single-device) curve

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