

General Description

MURF860 Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Features

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

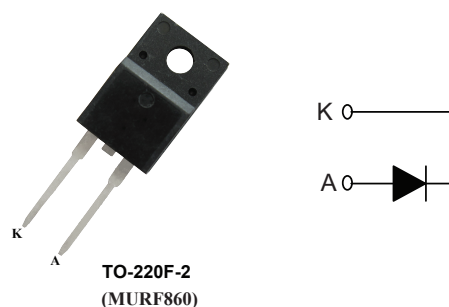
Product Summary

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

Applications

- Switched Mode Power Supplies (SMPS)
- inverter

TO-220F-2 Pin Configuration



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)	110	A
T_J	Operating Junction Temperature	175	$^{\circ}C$
T_{STG}	Storage Temperature	-40 to 150	$^{\circ}C$

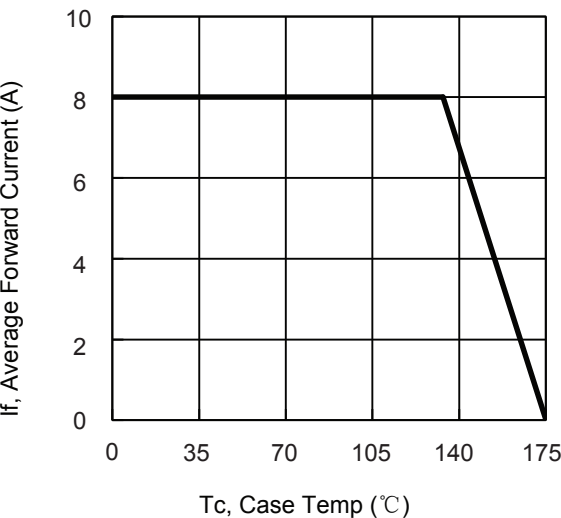
Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case(Per Leg)	4	---	$^{\circ}C/W$

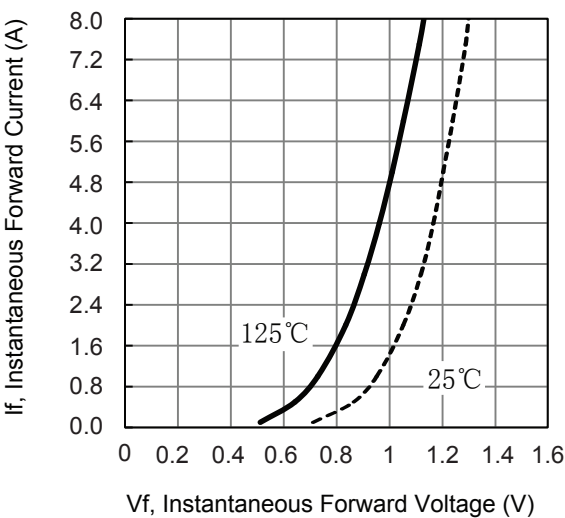
Electrical Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_F	Forward Voltage Drop per diode	$I_F=8A, T_C=25^{\circ}C$	---	1.3	1.6	V
		$I_F=8A, T_C=125^{\circ}C$	---	---	1.25	
I_R	Reverse Leakage Current per diode	$V_R=600V, T_C=25^{\circ}C$	---	---	0.01	mA
		$V_R=600V, T_C=125^{\circ}C$	---	---	0.1	

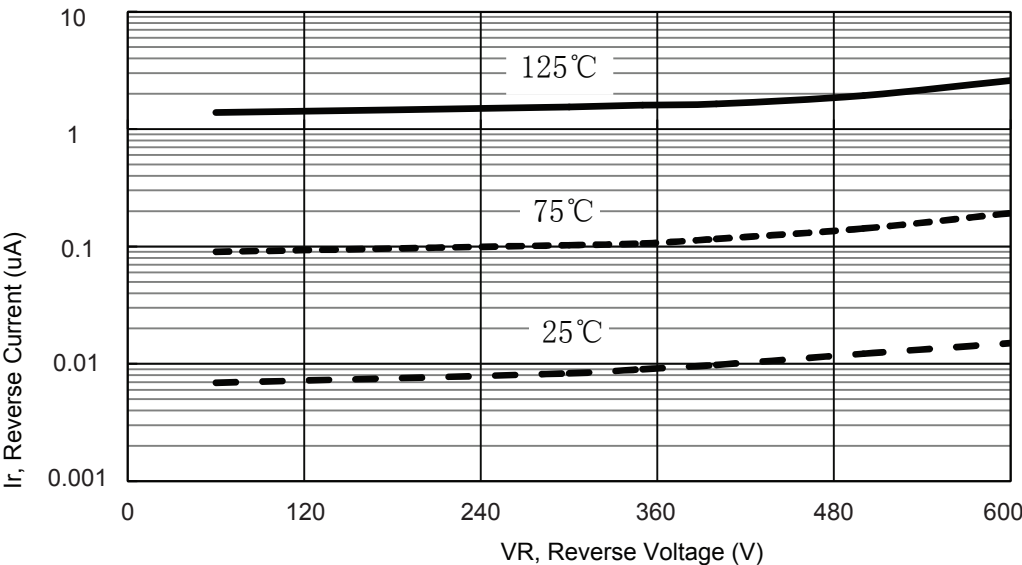
Characteristic Curves



Current derating curve, per element



The forward voltage and forward current curve



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

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