

Features:

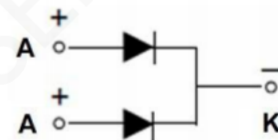
- Common Cathode Structure
- Low Power Loss and High Efficiency
- Low Forward Voltage Drop
- High Surge Capability



TO-220F

Application:

- High Frequency Switch
- Free Wheeling, and Polarity Protection Applications


Absolute Maximum Ratings ($T_c=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
V_R	Maximum DC Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current, $T_c=120^{\circ}\text{C}$	5(Per Leg) 10(Per Device)	A
I_{FSM}	Peak Forward Surge Current, 8.3ms Half Sine wave	100	A
T_j	Operating Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$

Thermal Characteristics ($T_c=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Max	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case Per Leg	2.5	$^{\circ}\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Per Leg	105	$^{\circ}\text{C}/\text{W}$

Electrical Characteristics ($T_c=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Max	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	$I_R=100\mu\text{A}$	100		V
I_R	Reverse Current	$V_R=100\text{V}$ $T_c=25^{\circ}\text{C}$ $V_R=100\text{V}$ $T_c=125^{\circ}\text{C}$		0.1 5	mA
V_F	Forward Voltage	$I_F=5\text{A}$ $T_c=25^{\circ}\text{C}$ $I_F=5\text{A}$ $T_c=125^{\circ}\text{C}$ $I_F=10\text{A}$ $T_c=25^{\circ}\text{C}$ $I_F=10\text{A}$ $T_c=125^{\circ}\text{C}$		0.86 0.76 0.96 0.86	V

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

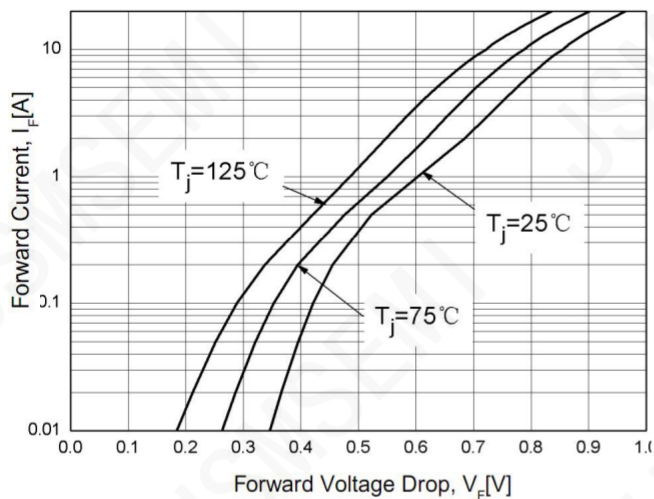


Figure 2. Reverse Leakage Current

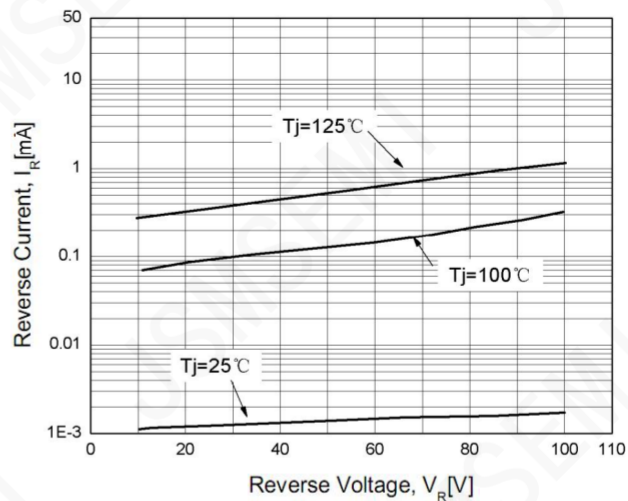


Figure 3. Junction Capacitance

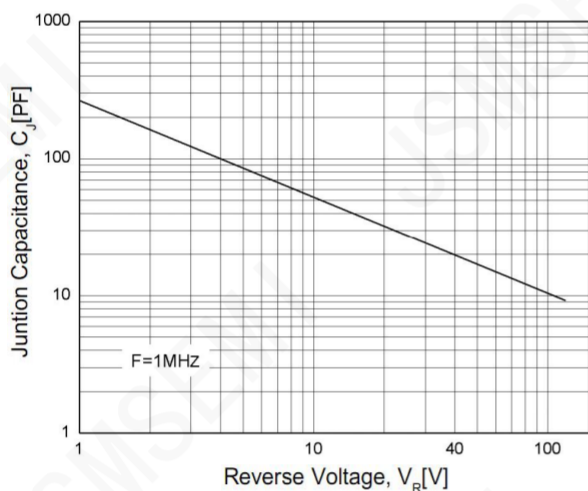
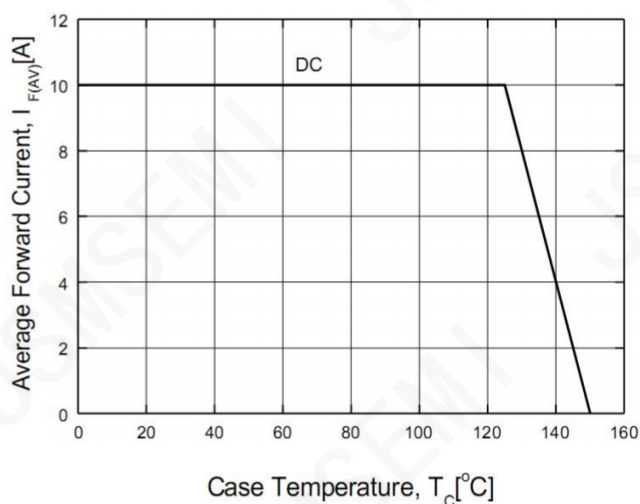


Figure 4. Power Derating



Package Information

TO-220F

Dimensions in Millimeters

