

30A,150V Schottky Barrier Diode

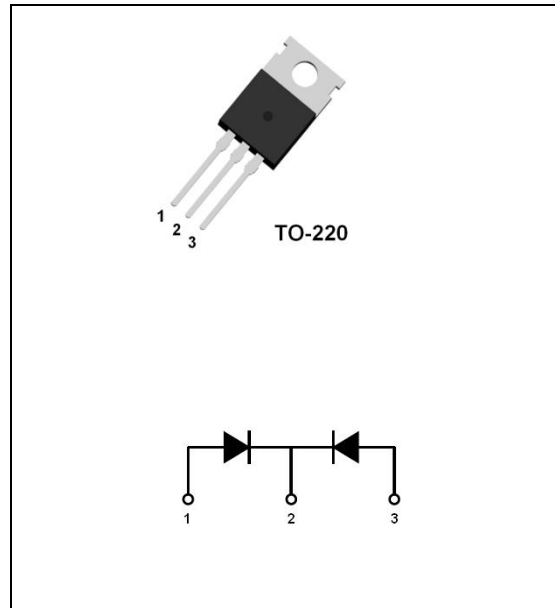
Description

The Schottky Barrier Diode Devices are optimized to reduce losses and EMI/RFI in high frequency power conditioning electrical systems.

The Schottky Barrier Diode is ideally suited for plating power supply, power converters, inverter welders, motor drives and other applications where switching losses are significant portion of the total losses.

Features

- Repetitive Reverse Voltage: $V_{RRM} = 150V$
- Low Forward Voltage: $V_F(\text{typ.}) = 0.83V @ I_F=15A$
- Average Forward Current: $I_{F(AV)} = 15A @ T_C=100^\circ C$
- Extensive Characterization of Recovery Parameters
- Reduced EMI and RFI
- Non-isolation Type Package
- $175^\circ C$ Operating Junction Temperature
- Built-in Dual FRD Construction



Applications

- High Speed & High Power Converters, Inverter Welders
- Various Switching and Telecommunication Power Supply
- Plating Power Supply
- Uninterruptible Power Supply(UPS)

Absolute Maximum Ratings (Per diode at $T_C=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Ratings	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	150	V
V_R	DC Blocking Voltage	120	V
$I_{F(AV)}$	Average Rectified Forward Current	$T_C = 100^\circ C, \text{Per Diode}$	15
		$T_C = 100^\circ C, \text{Per Device}$	30
I_{FSM}	Non-repetitive Peak Surge Current 60Hz Single Half-sine Wave	200	A
I^2t	I^2t For Fusing 60Hz Sine Wave	2×10^3	A ² S
P_D	Maximum Power Dissipation	325	W
T_J	Junction Temperature	-55 ~ +175	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ +175	$^\circ C$

Electrical Characteristics (Per diode @ $T_C=25\text{ }^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_F	Forward Voltage Drop	$I_F=15\text{A}$	-	0.83	0.9	V
		$I_F=15\text{A}, T_C=100^\circ\text{C}$	-	-	0.8	V
I_{RM}	Reverse Leakage Current	$V_R=150\text{V}$	-	-	5	μA
		$V_R=150\text{V}, T_C=100^\circ\text{C}$	-	-	2	mA

Thermal Characteristics

Symbol	Parameter	Ratings	Unit
$R_{th(J-C)}$	Thermal Resistance, Junction to case	0.46	$^\circ\text{C/W}$

Package Dimensions

TO-220

(Dimensions in Millimeters)

