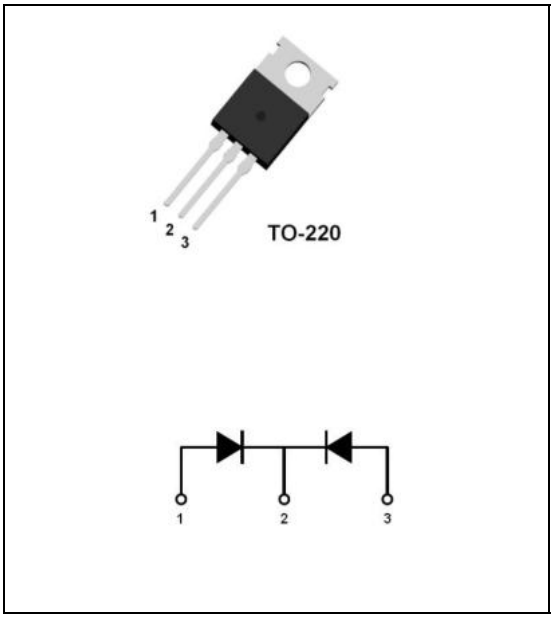
30A,150V Schottky Barrier Diode

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(typ.) = 0.83V @ I_F=15A
- Average Forward Current: $I_{F(AV)}$=15A @ T_C=100℃
- Extensive Characterization of Recovery Parameters
- Reduced EMI and RFI
- Non-isolation Type Package
- 175℃ 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 ℃ 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℃,Per Diode	15	A
		T_C = 100℃, 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^2S
P_D	Maximum Power Dissipation		325	W
T_J	Junction Temperature		-55 ~ +175	℃
T_{STG}	Storage Temperature		-55 ~ +175	℃

Electrical Characteristics (Per diode @T_C=25 ℃ unless otherwise noted)

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

Thermal Characteristics

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

Package Dimensions

TO-220

(Dimensions in Millimeters)