

HBR20150YD

Schottky Barrier Rectifiers



Voltage: 150 Volts

Current: 20 A

Package: TO-263

Features

- NH'S Plane Schottky Barrier Chip Technology
- Low Forward Voltage Drop For High Efficiency
- Low Power Loss For High Reliability
- High Frequency Switching Speed

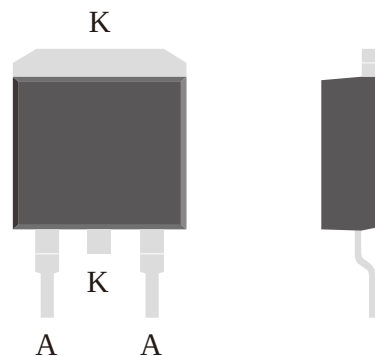
Mechanical Data

- **Case:** Molded With UL-94 ClassV-0 Recognized, RoHS-Compliant
- **Polarity:** Look At The Diagram And Polarity On The Right
- **Terminals:** Tin Plated Leads,Solderable Per J-STD-002 And JESD22-B102

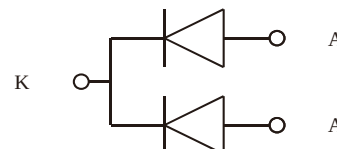
Typical Applications

- Switch Mode Power Supplies (SMPS)
- Fast Chargers
- LED Driver And Monitor Lighting
- Automotive Electronics And Charging Posts

Diagram:



Polarity:



Single Phase,Half Wave,60Hz,Resistive Or Inductive Load.For Capacitive Load,Derate Current By 20%

Maximum Ratings (Ta=25°C Unless Otherwise Specified)

Parameter	Test Conditions	Symbol	Ratings	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	150	V
Maximum RMS Voltag		V_{RMS}	105	V
Maximum DC Blocking Voltage		V_{DC}	150	V
Maximum Average Forward Rectified Current	Per Diode Total device	$I_{F(AV)}$	10 20	A
Peak Forward Surge Current Per Diode	8.3ms Single Half Sine-wave Superimposed On Rate Load	I_{FSM}	160	A
Current Squared Time Per Diode	$t < 8.3ms$	I^2t	106.2	A ² sec

Electrical Characteristics (Ta=25°C Unless Otherwise Specified)

Parameter	Test Conditions	Symbol	Ratings			Unit
			Min.	Typ.	Max.	
Instaneous Forward Voltage Per Diode	Ta=25°C	V_F	--	0.85	0.9	V
	Ta=110°C IF=10A		--	0.81	0.86	
Maximum DC Reverse Current at Rated DC Blocking Voltage	Ta=25°C , $V_R=V_{RRM}$	I_{RRM}	--	1	5	uA
	Ta=125°C , $V_R=V_{RRM}*80\%$		--	1	2	
Typical Junction Capacitance Per Diode	4 V,1MHz	C_J	--	160	--	pF

Thermal Characteristics (Ta=25°C Unless Otherwise Specified)

Parameter	Test Conditions	Symbol	Ratings			Unit
Operating Junction Temperature Range		T _J	-55	to	175	°C
Storage Temperature Range		T _{STD}	-55	to	175	
Thermal Resistance Junction To Ambient With Steady-State	Still Air Environment With Ta=25 °C	R _{θJA}	100			°C/W
Thermal Resistance Junction-Case With Steady-State	Device Mounted On 1 in2 FR-4 Board With 2oz. Copper	R _{θJC}	2			

Notes: 1.Pulse Test: 300 Us Pulse Width,1% Duty Cycle