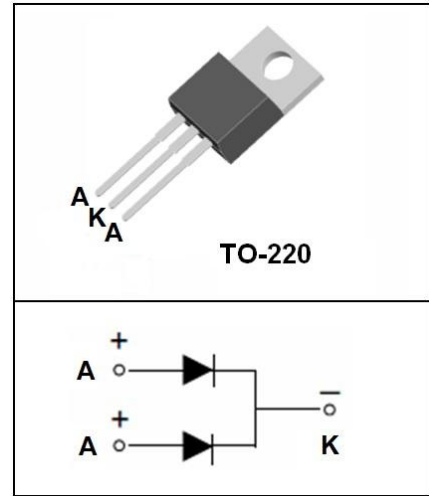


● **Features:**

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

● **Application:**

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



**Absolute Maximum Ratings**(Tc=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	100	V
V <sub>R</sub>	Maximum DC Reverse Voltage	100	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, Tc=120°C	10(Per Leg) 20(Per Device)	A
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3ms Half Sine wave	150	A
T <sub>j</sub>	Operating Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to+150	°C

**Thermal Characteristics**(Tc=25°C unless otherwise noted)

Symbol	Parameter	Max	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction to Case Per Leg	2.2	°C /W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient Per Leg	92	°C /W

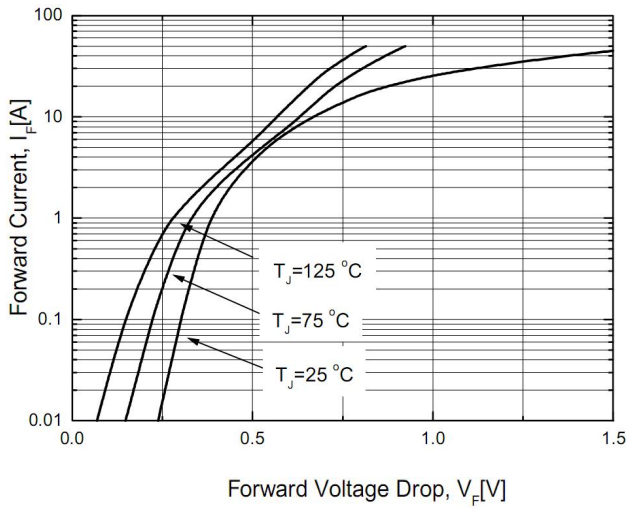
**Electrical Characteristics**(Tc=25°C unless otherwise noted)

Symbol	Parameter	Test Conditons	Min	Max	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	I <sub>R</sub> =100μA	100		V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> =100V Tc=25°C V <sub>R</sub> =100V Tc=125°C		0.1 15	mA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =10A Tc=25°C I <sub>F</sub> =10A Tc=125°C I <sub>F</sub> =20A Tc=25°C I <sub>F</sub> =20A Tc=125°C		0.73 0.63 0.83 0.73	V

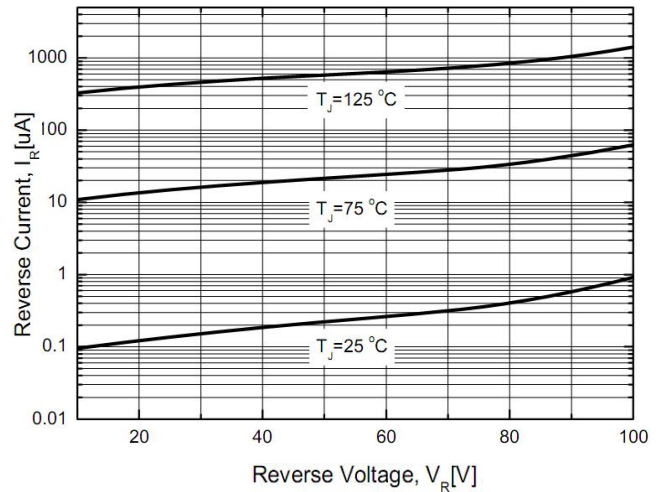
V<sub>F</sub> Typical Values: 0.66V@ I<sub>F</sub>=10A, Tc=25°C

## Typical Performance Characteristics

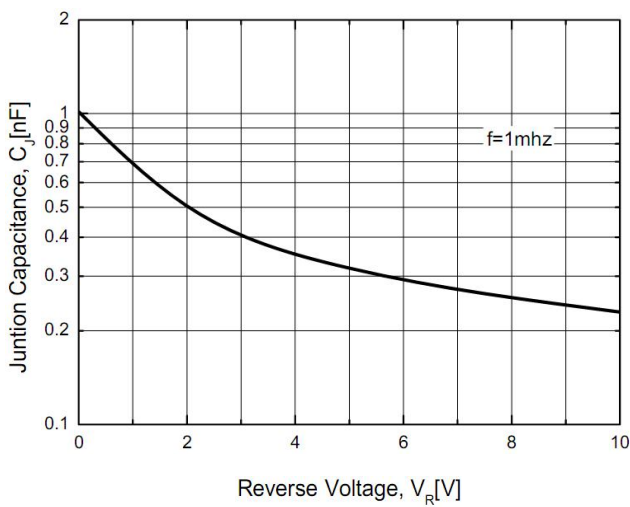
**Figure 1. Forward Current Characteristics**



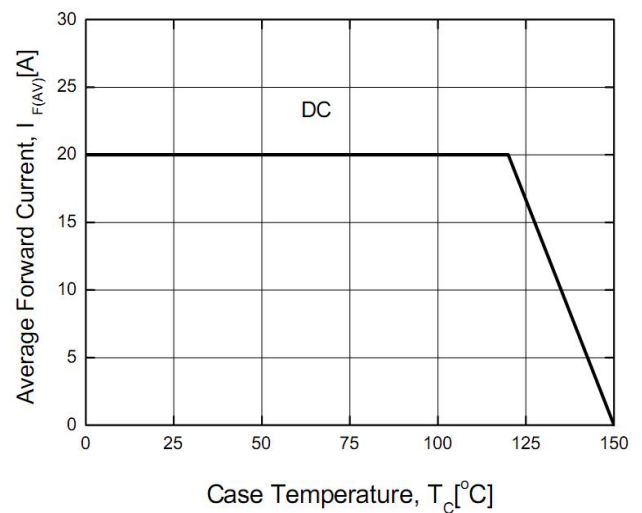
**Figure 2. Reverse Leakage Current**



**Figure 3. Junction Capacitance**



**Figure 4. Power Derating**



**TO-220 MECHANICAL DATA**

UNIT: mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	4.00		4.80	E	9.70		10.70
B	1.15		1.45	e		2.54	
B1	0.90		1.40	F	1.10		1.40
b1	0.65		0.95	L	12.50		14.50
c	0.30		0.50	L1	2.90	3.40	3.90
D	14.40		16.40	Q	2.50		3.10
D1	5.90		6.90	Q1	2.00		3.00
				$\phi P$	3.60		4.00

