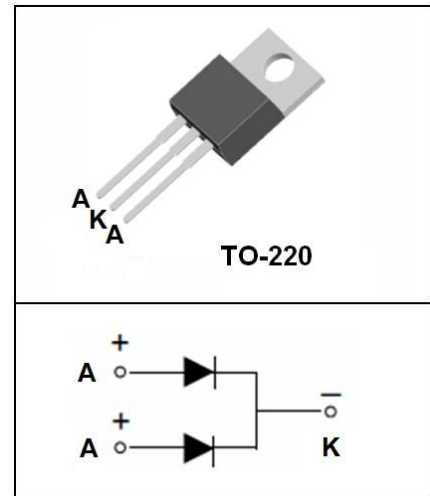


● **Features:**

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

● **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, $T_c=120^{\circ}\text{C}$	10(Per Leg) 20(Per Device)	A
I_{FSM}	Peak Forward Surge Current, 8.3ms Half Sine wave	150	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	2.2	$^{\circ}\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Per Leg	92	$^{\circ}\text{C}/\text{W}$

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	$I_F=10\text{A}$ $T_c=25^{\circ}\text{C}$ $I_F=10\text{A}$ $T_c=125^{\circ}\text{C}$ $I_F=20\text{A}$ $T_c=25^{\circ}\text{C}$ $I_F=20\text{A}$ $T_c=125^{\circ}\text{C}$		0.9 0.8 1.0 0.9	V

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

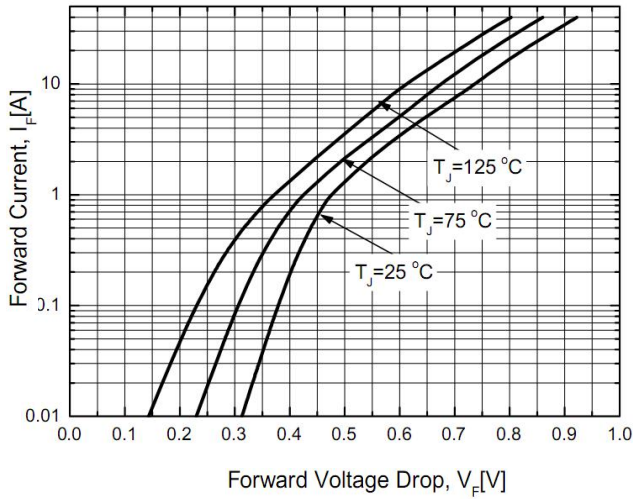


Figure 2. Reverse Leakage Current

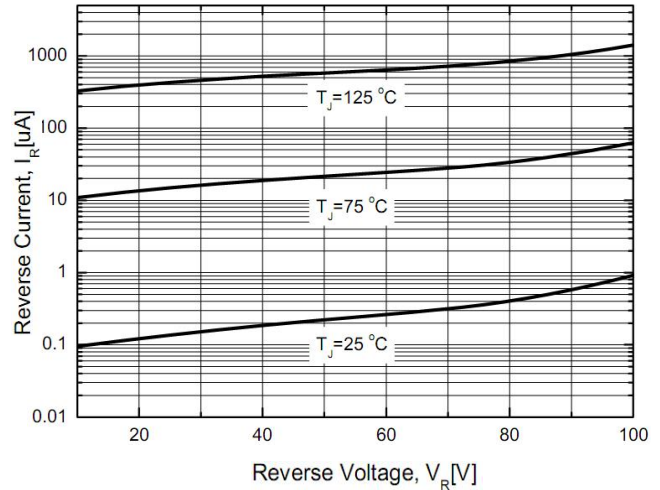


Figure 3. Junction Capacitance

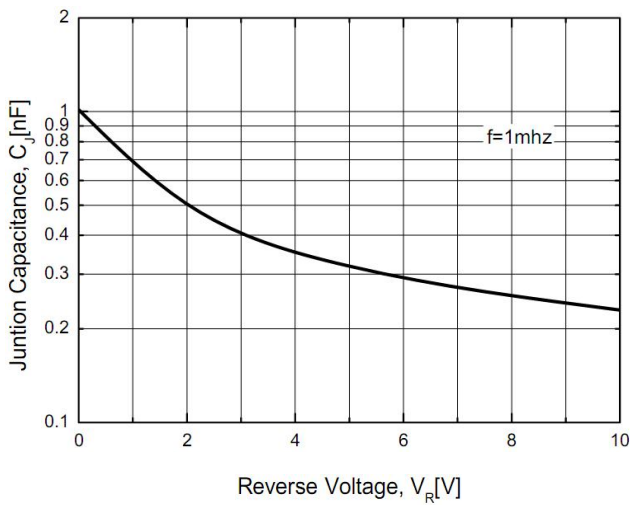
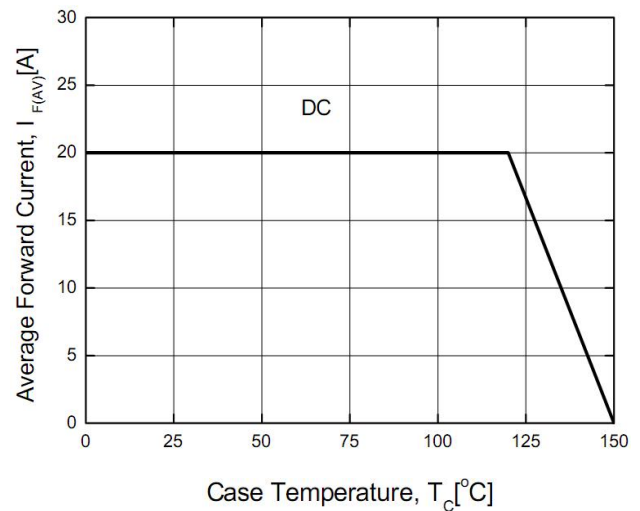


Figure 4. Power Derating



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
				ϕP	3.60		4.00

