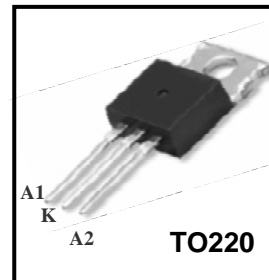
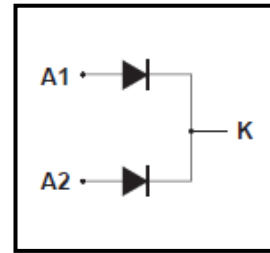


Power Schottky Rectifier

Features

- 20A(2×10A),100V
- $V_F(\text{max})=0.68\text{V}(@T_J=125^\circ\text{C})$
- Low power loss, high efficiency
- Common cathode structure
- Guard ring for over voltage protection, High reliability
- Maximum Junction Temperature Range(175°C)



General Description

Dual center tap Schottky rectifiers suited for High frequency switch power supply and Free wheeling diodes, polarity protection applications.

Absolute Maximum Ratings

Symbol	Parameter	Value	Units
V_{DRM}	Repetitive peak reverse voltage	100	V
V_{DC}	Maximum DC blocking voltage	100	V
$I_{\text{F(RMS)}}$	RMS forward current	30	A
$I_{\text{F(AV)}}$	Average forward current	per diode	10
		per device	20
I_{FSM}	Surge non repetitive forward current	150	A
I_{RRM}	Repetitive peak reverse current	1	A
dv/dt	Critical rate of rise of reverse voltage	10000	V/ns
T_{J}	Junction Temperature	175	°C
T_{stg}	Storage Temperature	-40~150	°C

Thermal Characteristics

Symbol	Parameter	Value			Units
		Min	Typ	Max	
R_{QJC}	Thermal Resistance, Junction-to-Case	-	-	1.9	°C/W
R_{QCS}	Thermal Resistance, Case-to-Sink	0.1	-	-	°C/W

Electrical Characteristics (per diode)

Characteristics	Symbol	Test Condition		Min	Typ.	Max	Unit
Reverse leakage current	I_R	$V_R = V_{RRM}$	$T_j = 25^\circ\text{C}$	-	-	10	μA
			$T_j = 125^\circ\text{C}$		-	5	mA
Forward voltage drop	V_F	$I_F = 10\text{A}$	$T_j = 25^\circ\text{C}$	-	0.75	0.80	V
			$T_j = 125^\circ\text{C}$	-	0.62	0.68	
		$I_F = 20\text{A}$	$T_j = 25^\circ\text{C}$	-	-	0.74	
			$T_j = 125^\circ\text{C}$	-	0.62	0.7	

Note : $t_p = 380 \mu\text{s}$, $\delta < 2\%$

WSP20D100

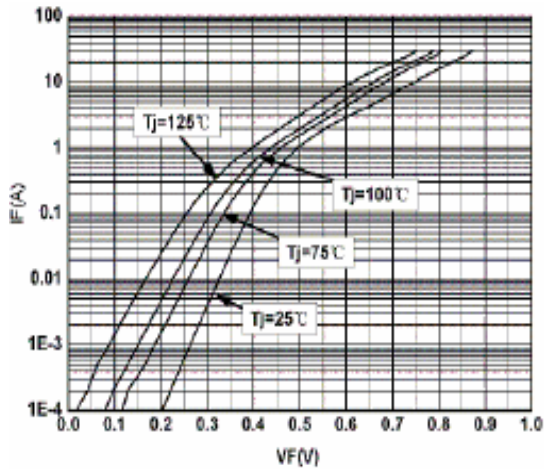


Fig.1 Forward voltage drop versus forward current (maximum values, per diode).

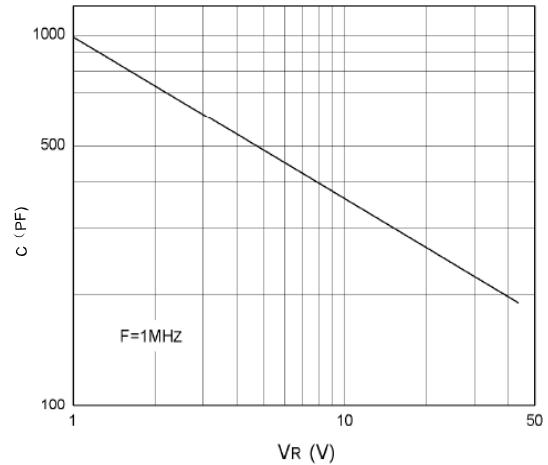


Fig.2 Junction capacitance versus reverse voltage applied (typical values, per diode).

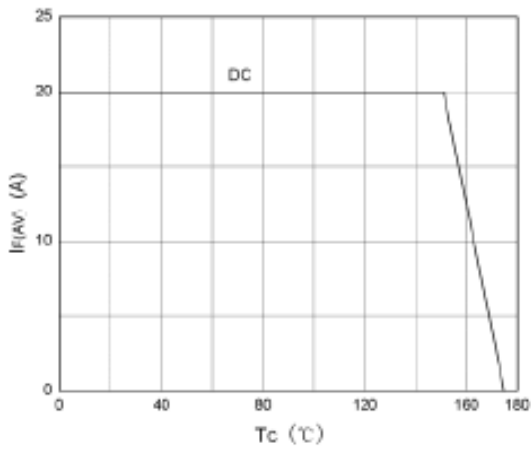


Fig.3 Average current versus ambient temperature (d=0.5) (per diode)

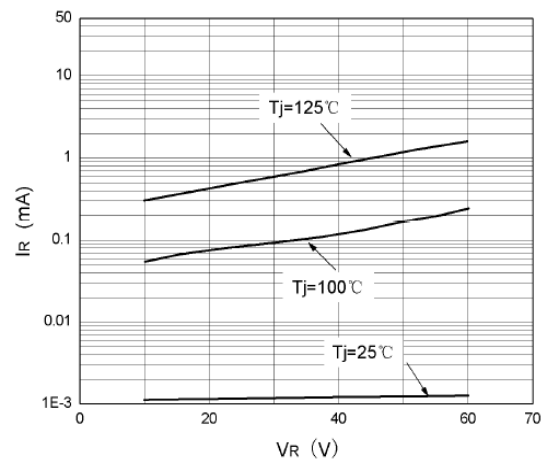


Fig.4 Reverse leakage current versus reverse voltage applied (typical values, per diode)..

TO-220 Package Dimension

