

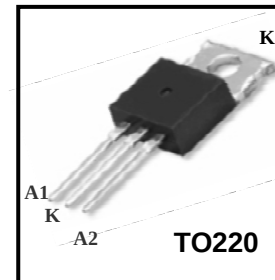
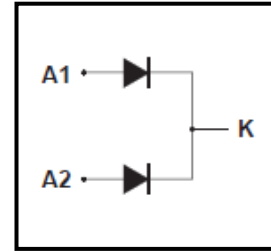
Power Schottky Rectifier

Features

- 10A(1×5A),100V
- $V_F(\text{max})=0.60\text{V}(@T_J=125^\circ\text{C})$
- 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		10	A
$I_{\text{F(AV)}}$	Average forward current	per diode	5	A
		per device	10	
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	$^\circ\text{C}$
T_{stg}	Storage Temperature		-40~150	$^\circ\text{C}$

Thermal Characteristics

Symbol	Parameter	Value			Units
		Min	Typ	Max	
R_{QJC}	Thermal Resistance, Junction-to-Case	-	-	1.3	$^\circ\text{C/W}$
R_{QCS}	Thermal Resistance, Case-to-Sink	0.3	-	-	$^\circ\text{C/W}$

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	$I_F = 5\text{A}$	$T_j = 25^{\circ}\text{C}$	-	0.71	0.75	V
			$T_j = 125^{\circ}\text{C}$	-	0.56	0.60	
		$I_F = 210\text{A}$	$T_j = 25^{\circ}\text{C}$	-	0.78	0.85	
			$T_j = 125^{\circ}\text{C}$	-	0.65	0.7	

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

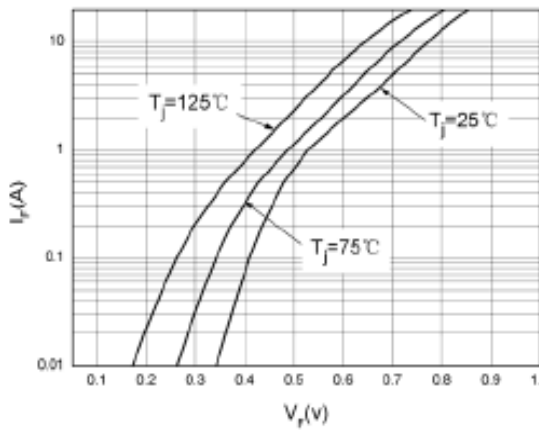


Fig.1 Forward voltage drop versus forward current (maximum values, per diode).

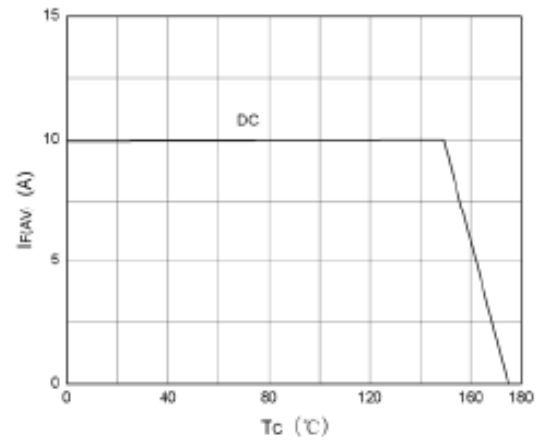


Fig.2 Average current versus ambient temperature (d=0.5) (per diode)

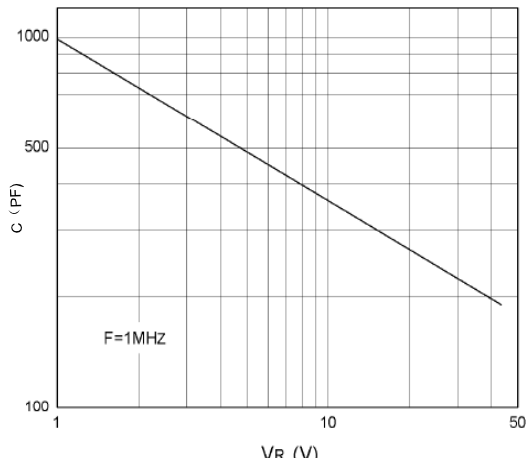


Fig.3 Junction capacitance versus reverse voltage applied (typical values, per diode).

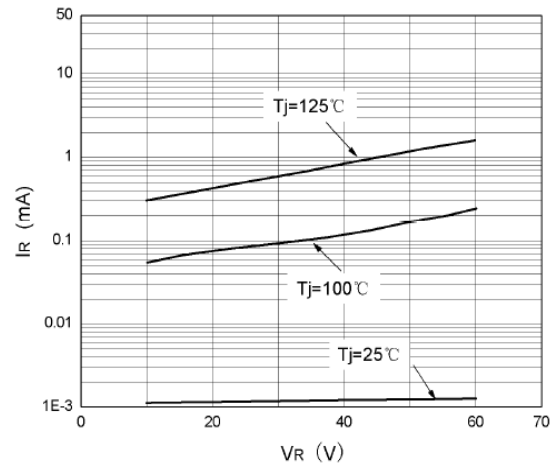


Fig.4 Reverse leakage current versus reverse voltage applied (typical values, per diode)..

TO-220 Package Dimension

