

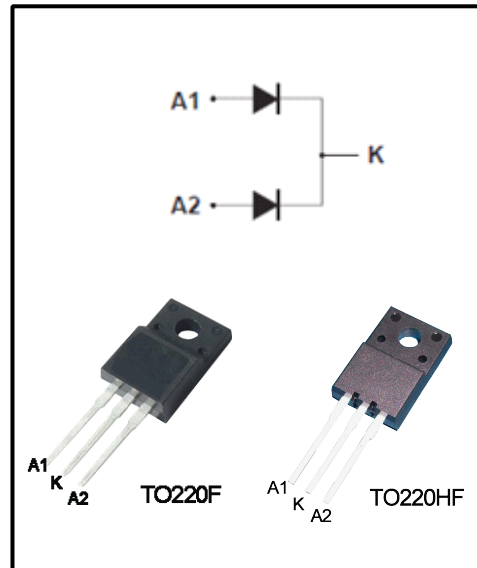
*Power Schottky Rectifier*

**Features**

- 20A(2×10A),100V
- $V_F(\text{max})=0.7V(@T_J=125^\circ\text{C})$
- 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
$V_{\text{DRM}}$	Repetitive peak reverse voltage	100	V
$V_{\text{DC}}$	Maximum DC blocking voltage	100	V
$I_{\text{F(AV)}}$	Average forward current	per diode	10
		per device	20
$I_{\text{FSM}}$	Surge non repetitive forward current	200	A
$T_J$	Junction Temperature	175	°C
$T_{\text{stg}}$	Storage Temperature	-40~150	°C

**Thermal Characteristics**

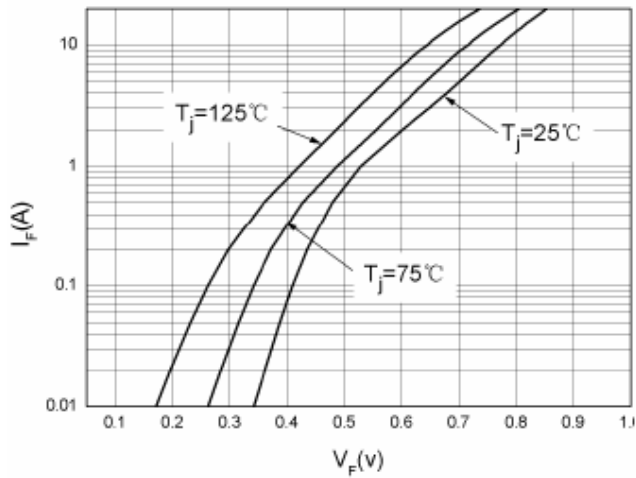
Symbol	Parameter	Value			Units
		Min	Typ	Max	
$R_{\text{QJC}}$	Thermal Resistance, Junction-to-Case	-	-	2.5	°C/W

**Ordering Information**

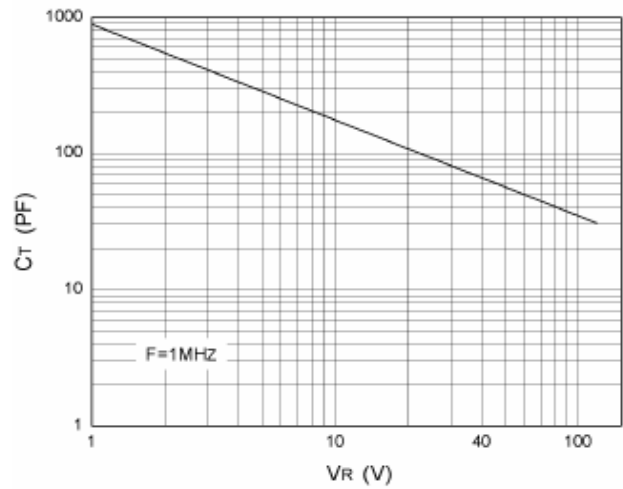
Order codes	Package	Marking	Halogen Free	Packaging
WSF20D100L	TO220F	F20D100L	NO	Tube
WSF20D100-HF	TO220HF	F20D100	NO	Tube

## Electrical Characteristics (per diode)

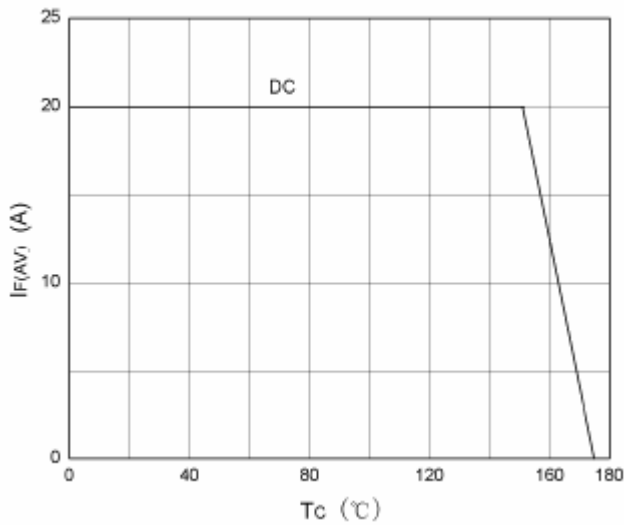
Characteristics	Symbol	Test Condition		Min	Typ.	Max	Unit
Reverse leakage current	$I_R$	VR = VRRM	Tj = 25°C	-	-	10	$\mu$ A
			Tj = 125°C		-	5	mA
Forward voltage drop	$V_F$	IF= 10A	Tj = 25°C	-	0.78	0.85	V
			Tj = 125°C	-	0.65	0.7	



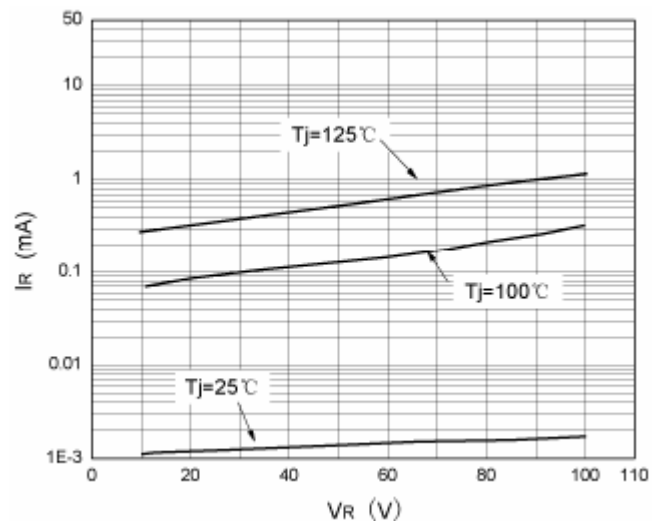
**Fig.1 Forward voltage drop versus forward current (maximum values, per diode).**



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



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

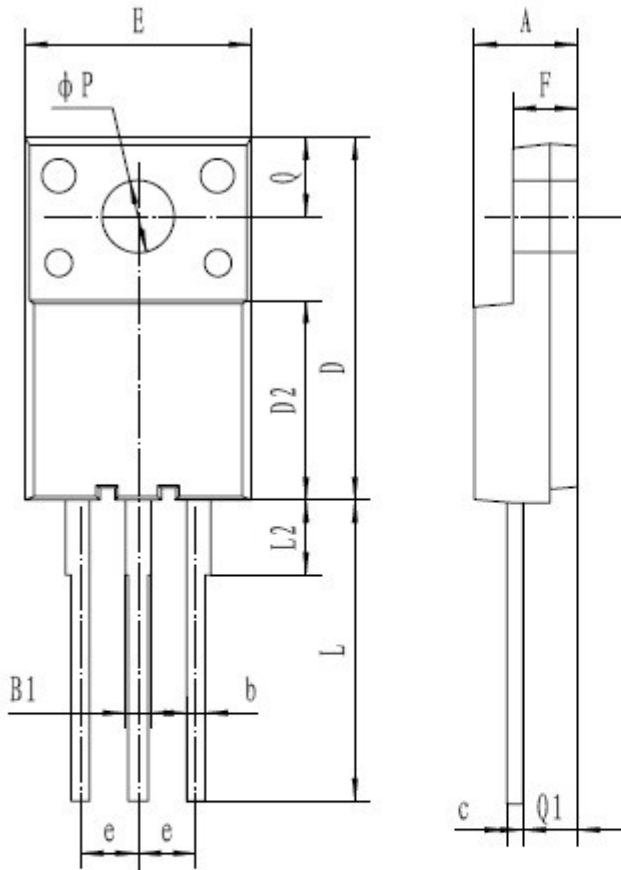


**Fig.4 Reverse leakage current versus reverse voltage applied (typical values, per diode)..**



**TO-220HF Package Dimension**

Unit:mm



Symbol	Min	Max
A	4.0	5.0
B1	0.87	1.27
b	0.72	0.92
c	0.5	0.70
D	15.0	16.5
D2	7.8	9.4
E	9.62	10.62
e	2.54(typ)	
F	2.3	3.3
L	13.0	14.0
L2	3.1	3.5
$\phi P$	3.0	3.4
Q	3.15	3.55
Q1	2.2	2.5

