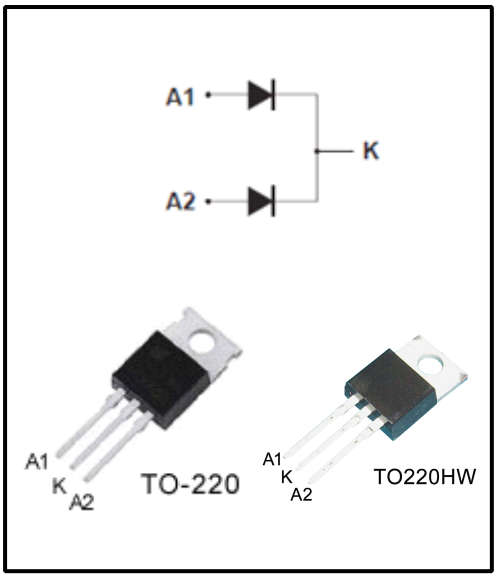
WSP10D100

Power Schottky Rectifier

Features

- 10A(2×5A),100V
- V_F(max)=0.70V(@TJ=125℃)
- Low power loss, high efficiency
- Common cathode structure
- Guard ring for over voltage protection, High reliability
- Maximum Junction Temperature Range(175℃)



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
$I_{F(AV)}$	Average forward current	per diode	5	A
		per device	10	
I_{FSM}	Surge non repetitive forward current		80	A
$T_{J,}$	Junction Temperature		175	℃
T_{stg}	Storage Temperature		-40~150	℃

Thermal Characteristics

Symbol	Parameter	Value			Units
		Min	Typ	Max	
R_{QJC}	Thermal Resistance, Junction-to-Case	-	-	1.9	℃/W

Ordering Information

Order codes	Package	Marking	Halogen Free	Packaging
WSP10D100L	TO220C	P10D100L	NO	Tube
WSP10D100-HW	TO220HW	P10D100	NO	Tube

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Electrical Characteristics (per diode)

Characteristics	Symbol	Test Condition		Min	Typ.	Max	Unit
Reverse leakage current	I_R	VR = VRRM	Tj = 25°C	-	-	10	μA
			Tj = 125°C		-	5	mA
Forward voltage drop	V_F	IF= 5A	Tj = 25°C	-	0.77	0.83	V
			Tj = 125°C	-	0.65	0.70	
		IF= 10A	Tj = 25°C	-	0.85	0.90	
			Tj = 125°C	-	0.73	0.80	

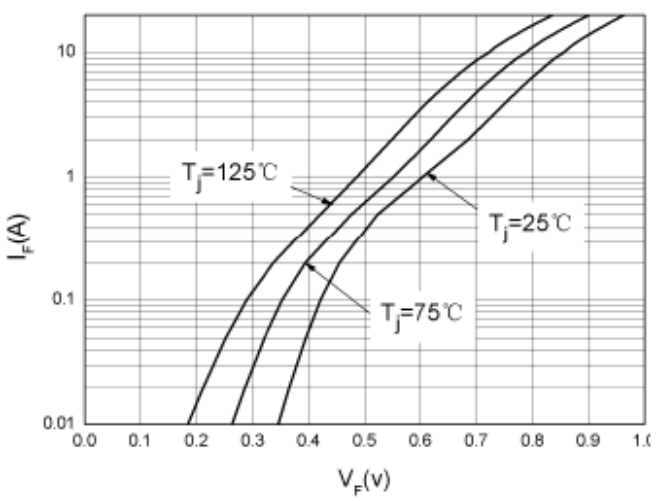


Fig.1 Forward voltage drop versus forward current (maximum values, per diode).

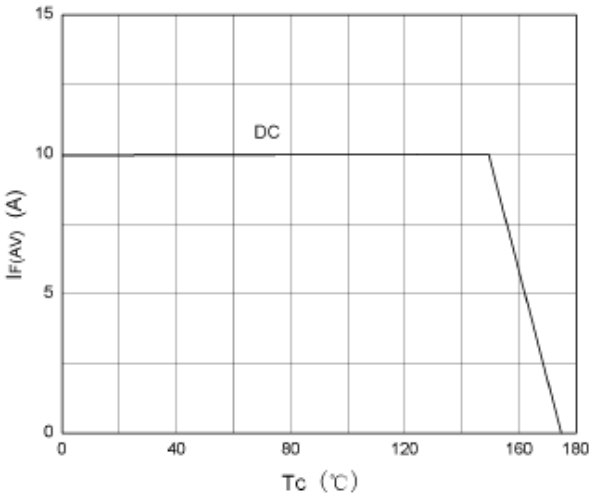


Fig.2 Average current versus ambient temperature (d=0.5) (per diode)

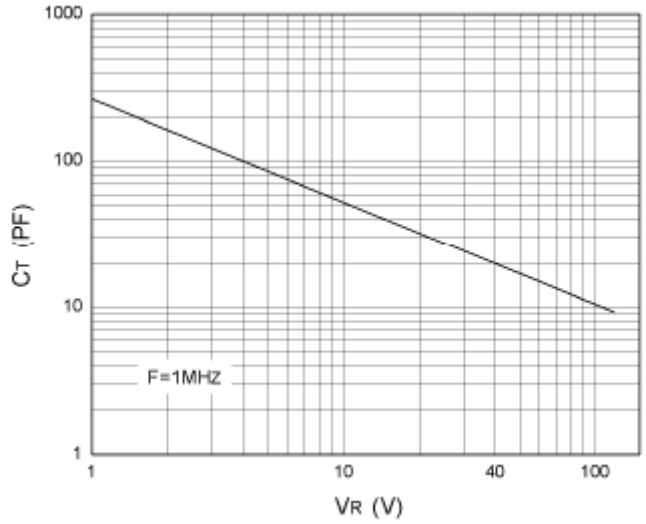


Fig.3 Junction capacitance versus reverse voltage applied (typical values, per diode).

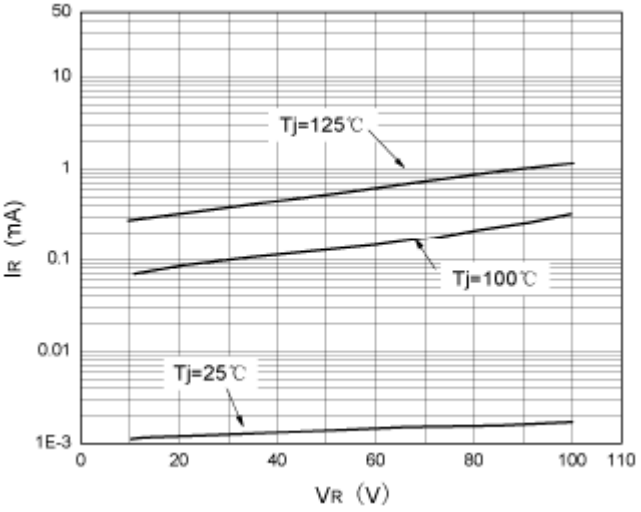
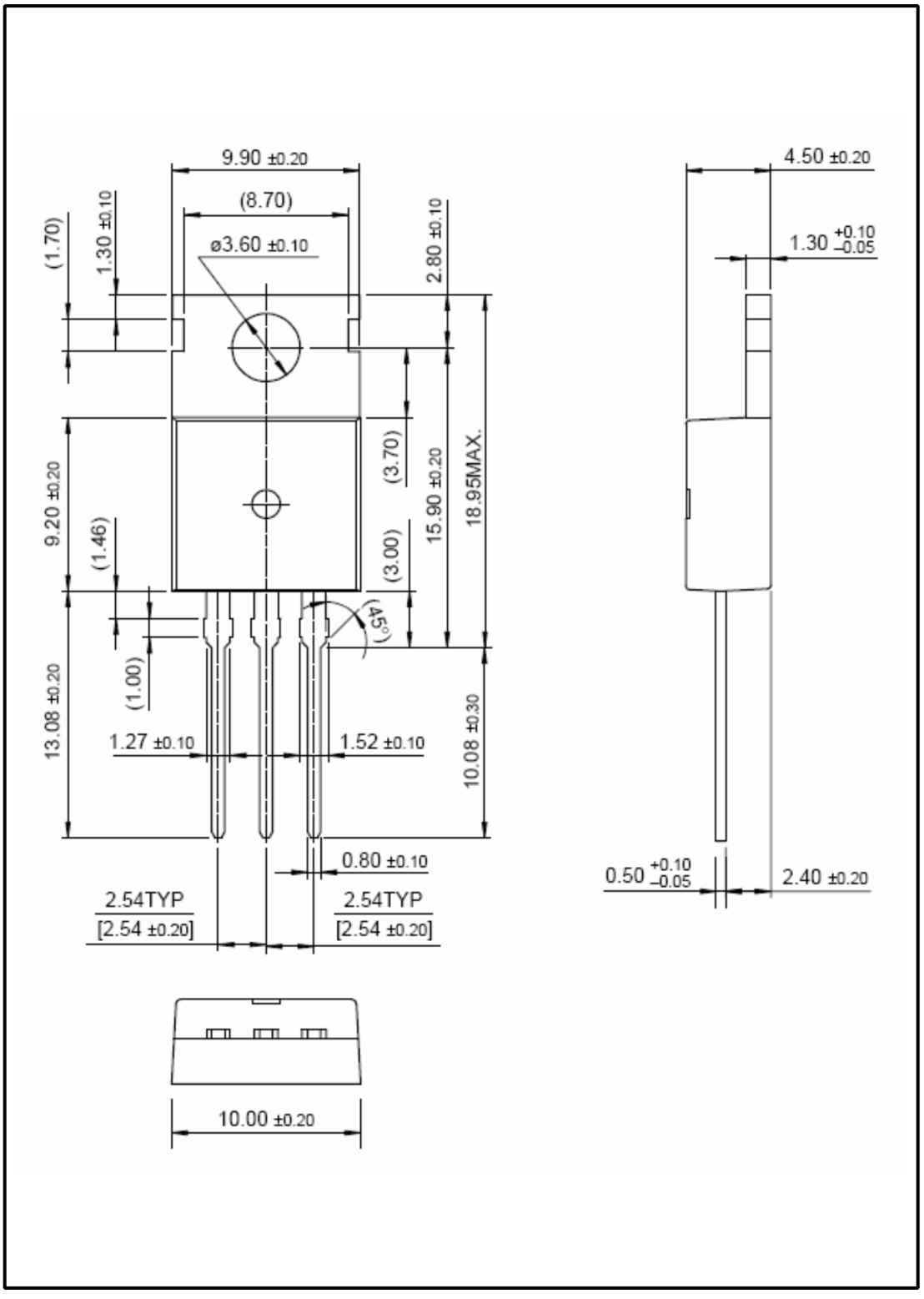


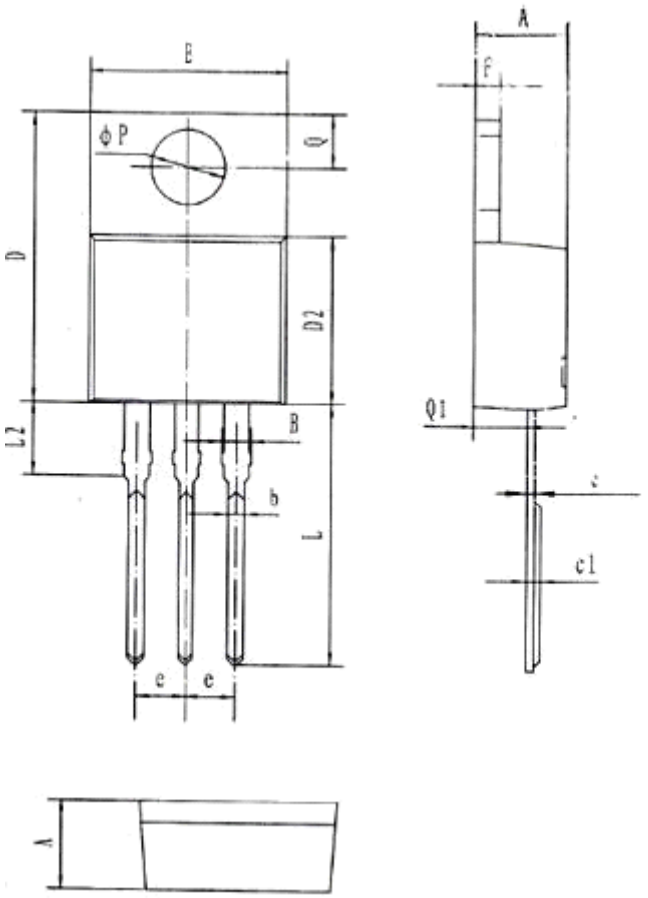
Fig.4 Reverse leakage current versus reverse voltage applied (typical values, per diode)..

TO-220 Package Dimension



TO-220HW Package Dimension

Unit: mm



Symbol	MIN	MAX
A	4.40	4.80
B	1.10	1.40
b	0.70	0.95
c	0.28	0.48
c1	0.32	0.52
D	14.45	16.00
D2	8.20	9.20
E	9.60	10.40
e	2.39	2.69
F	1.20	1.35
L	13.05	14.05
L2	3.70	3.90
Q	2.40	3.00
Q1	2.20	2.90
P	3.50	4.00