

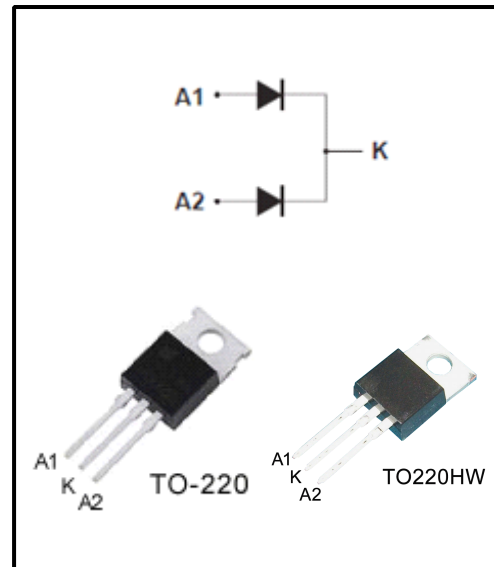
Power Schottky Rectifier

Features

- 10A(2×5A),100V
- $V_F(\text{max})=0.70\text{V}(@T_J=125^\circ\text{C})$
- 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
$I_{F(AV)}$	Average forward current	per diode	5
		per device	10
I_{FSM}	Surge non repetitive forward current	80	A
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

Ordering Information

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

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	$I_F = 5\text{A}$	$T_j = 25^\circ\text{C}$	-	0.77	0.83	V
			$T_j = 125^\circ\text{C}$	-	0.65	0.70	
		$I_F = 10\text{A}$	$T_j = 25^\circ\text{C}$	-	0.85	0.90	
			$T_j = 125^\circ\text{C}$	-	0.73	0.80	

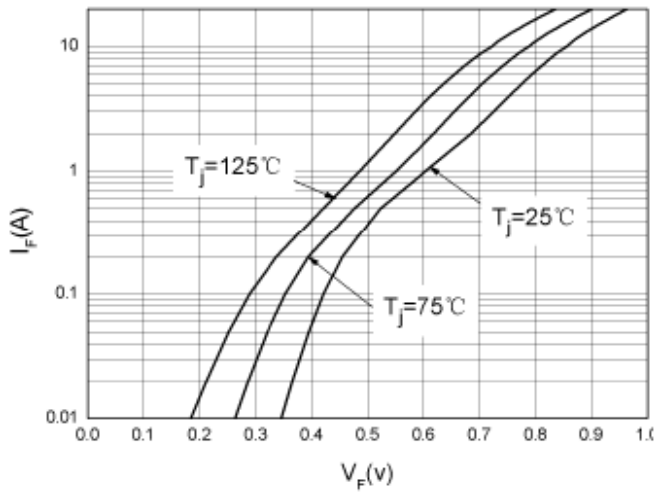


Fig.1 Forward voltage drop versus forward current (maximum values, per diode).

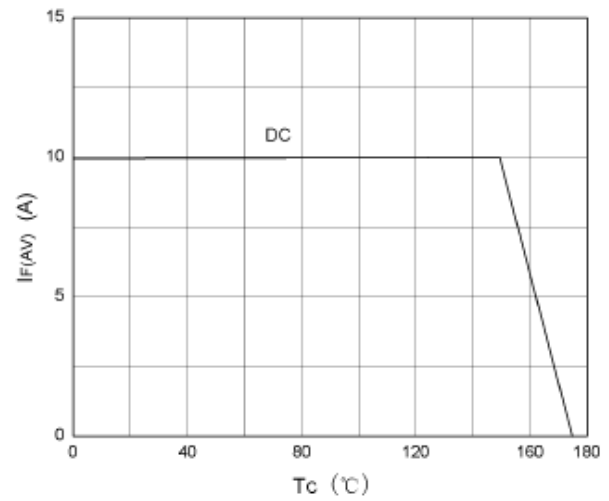


Fig.2 Average current versus ambient temperature ($d=0.5$) (per diode)

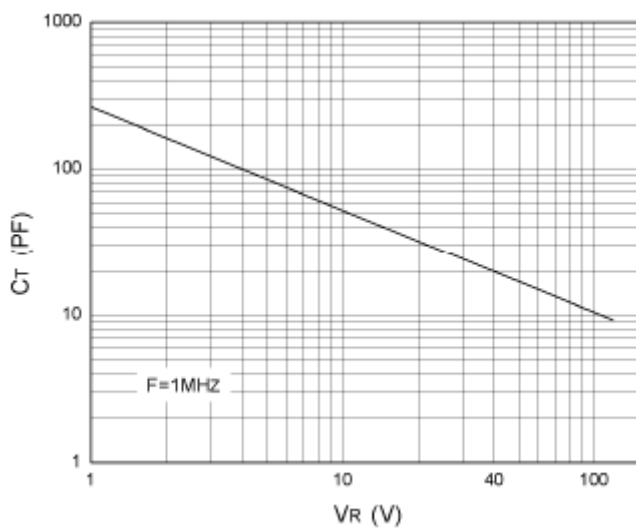


Fig.3 Junction capacitance versus reverse voltage applied (typical values, per diode).

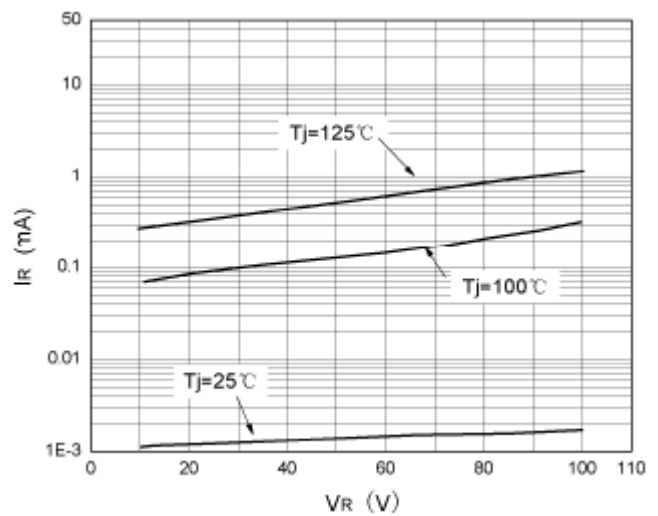
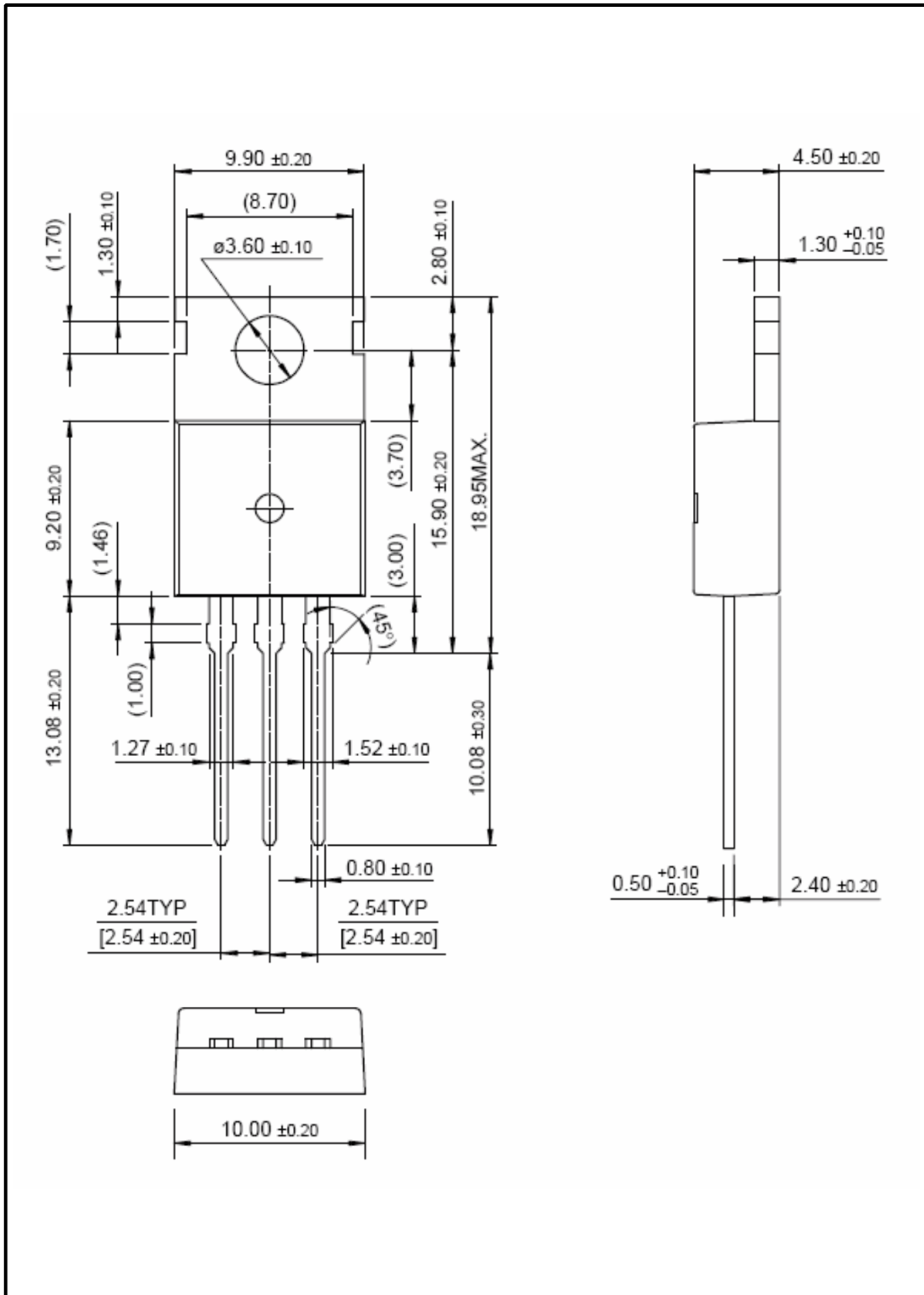


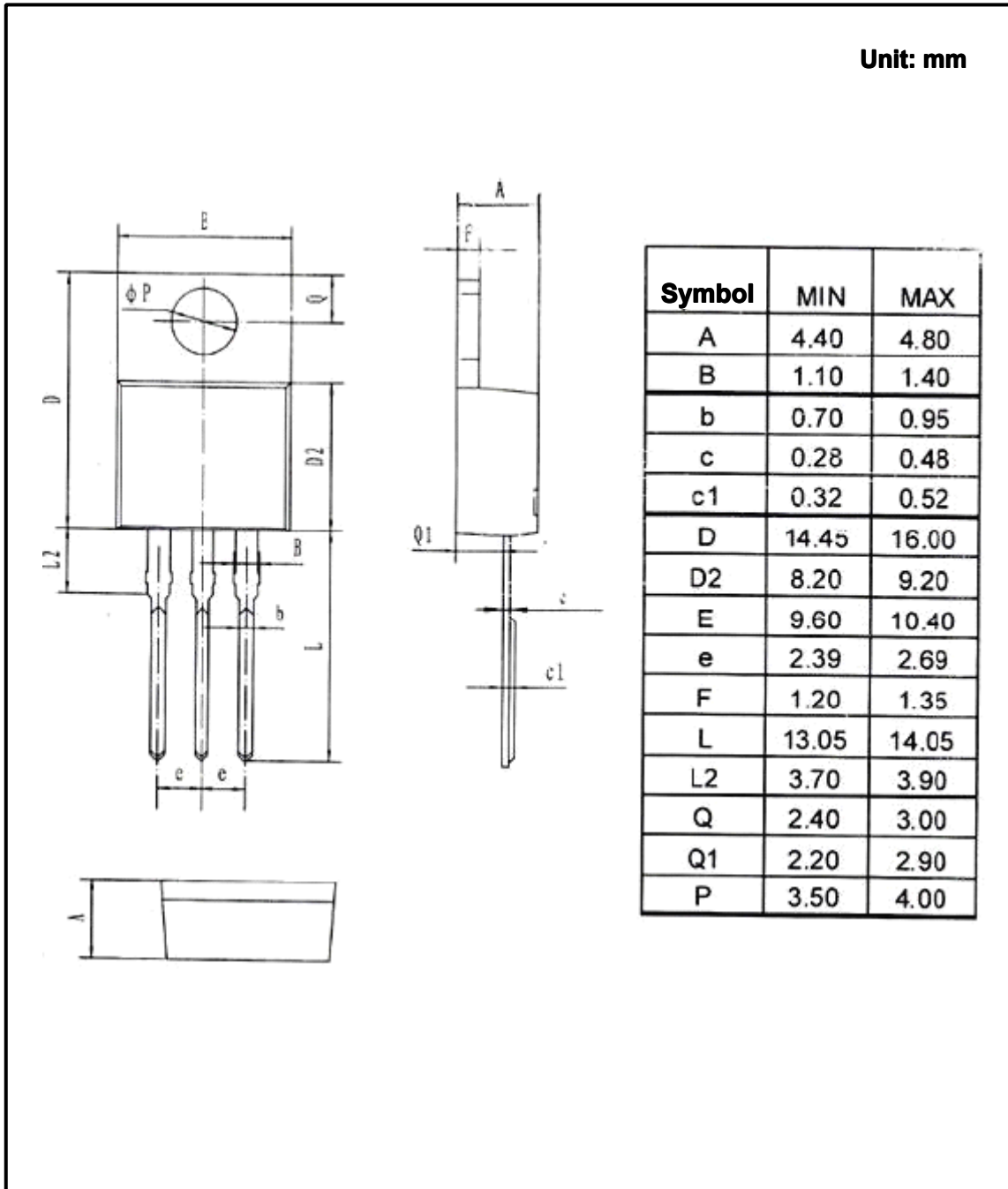
Fig.4 Reverse leakage current versus reverse voltage applied (typical values, per diode)..

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