

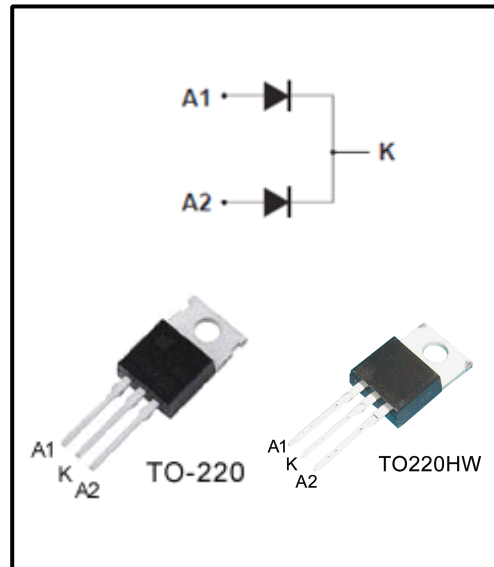
Silicon Controlled Rectifiers

Features

- 30A(2× 15A),100V
- $V_{F(max)}=0.72V(@T_J=125^{\circ}C)$
- 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	15	A
		Per device	30	
I_{FSM}	Surge non repetitive forward current		275	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	-	-	1.8	°C/W

Ordering Information

Order codes	Package	Marking	Halogen Free	Packaging
WSP30D100	TO220C	P30D100	NO	Tube
WSP30D100-HW	TO220HW	P30D100	NO	Tube

Electrical Characteristics (per diode)

Characteristics	Symbol	Test Conditions		Min	Typ	Max	Units
Reverse leakage current	I _R	V _R =V _{RRM}	T _j =25 °C	-	-	10	μA
			T _j =125 °C	-	-	5	mA
Forward voltage drop	V _F	I _F =15A	T _j =25 °C	-	0.78	0.85	V
			T _j =125 °C	-	0.66	0.72	

*Notes: t_p =380μs, δ<2%

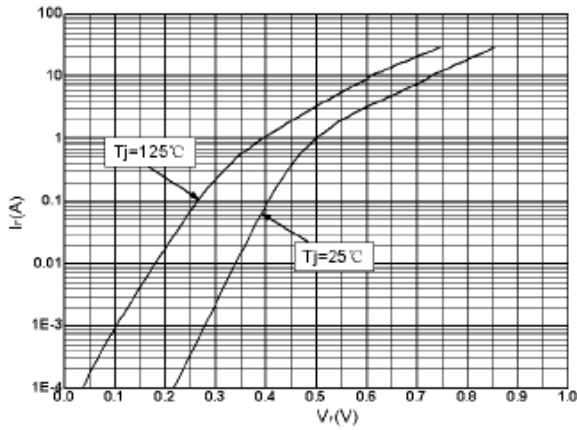


Fig.1 Forward Voltage Drop Versus Forward current(maximum Values ,per diode)

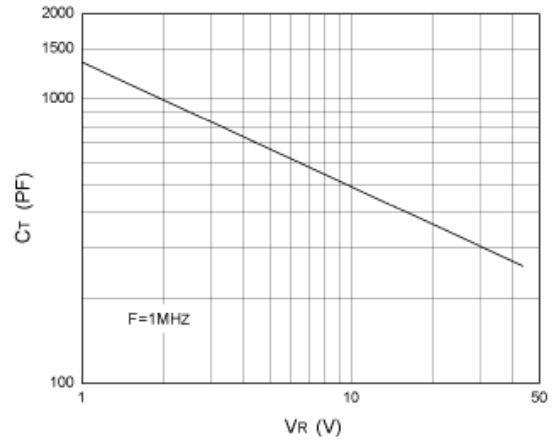


Fig .2 Junction Capacitance Versus reverse Voltage applied (typical Values,per diode)

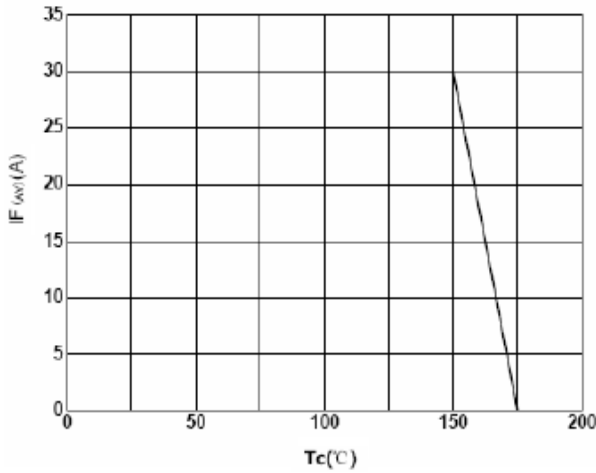


Fig. 3 Average Current versus ambient temperature (d=0.5)(per diode)

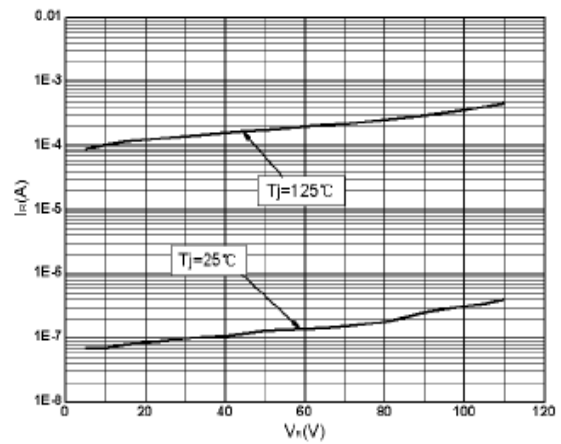
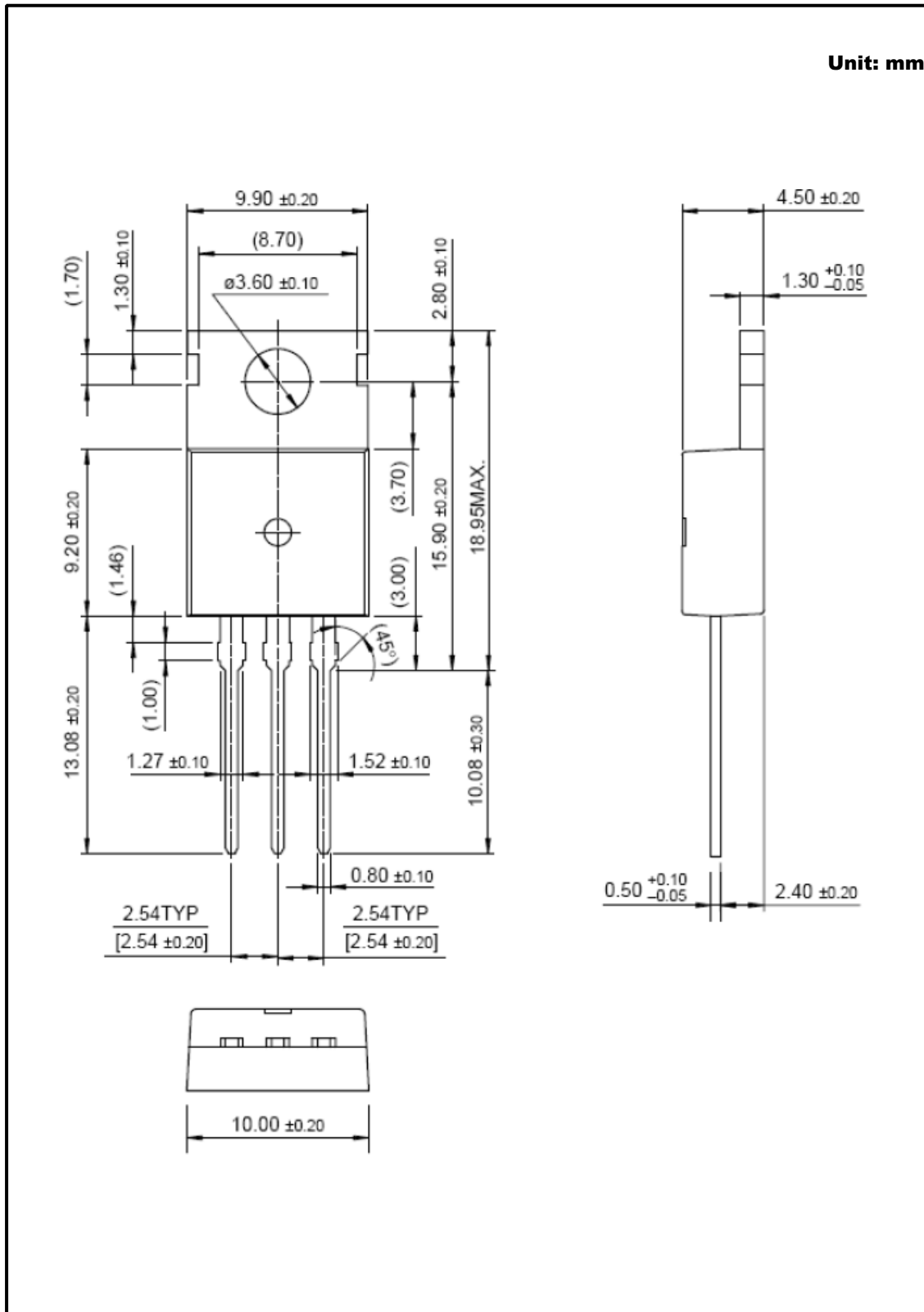


Fig. 4 Reverse leakage current versus reverse voltage applied (typical values,per diode)

TO-220 Package Dimension



TO-220HW Package Dimension

Unit:mm

