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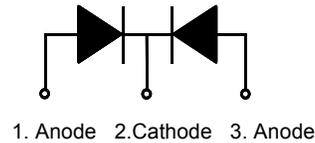
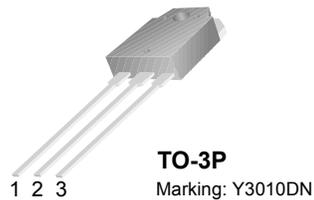
Schottky Barrier Rectifier

Features

- Low forward voltage drop
- High frequency properties and switching speed
- Guard ring for over-voltage protection

Applications

- Switched mode power supply
- Freewheeling diodes



Absolute Maximum Ratings T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{RRM}	Maximum Repetitive Reverse Voltage	100	V
V _R	Maximum DC Reverse Voltage	100	V
I _{F(AV)}	Average Rectified Forward Current @ T _C = 135°C	30	A
I _{F(SM)}	Non-repetitive Peak Surge Current (per diode) 60Hz Single Half-Sine Wave	250	A
T _J , T _{STG}	Operating Junction and Storage Temperature	- 65 to +150	°C

Thermal Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
R _{θJC}	Maximum Thermal Resistance, Junction to Case (per diode)	0.78	°C/W
R _{θJC}	Maximum Thermal Resistance, Junction to Case (per PKG)	0.48	°C/W
R _{θJC}	Maximum Thermal Resistance, Case to Heatsink	0.2	°C/W

Electrical Characteristics (per diode) T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
V _{FM} *	Maximum Instantaneous Forward Voltage I _F = 15A I _F = 15A I _F = 30A I _F = 30A	T _C = 25 °C T _C = 125 °C T _C = 25 °C T _C = 125 °C	0.85 0.67 1.05(Typ.) 0.80	V
I _{RM} *	Maximum Instantaneous Reverse Current @ rated V _R	T _C = 25 °C T _C = 125 °C	1 20	mA

* Pulse Test: Pulse Width=300μs, Duty Cycle=2%

Typical Performance Characteristics

Figure 1. Typical Forward Voltage Characteristics (per diode)

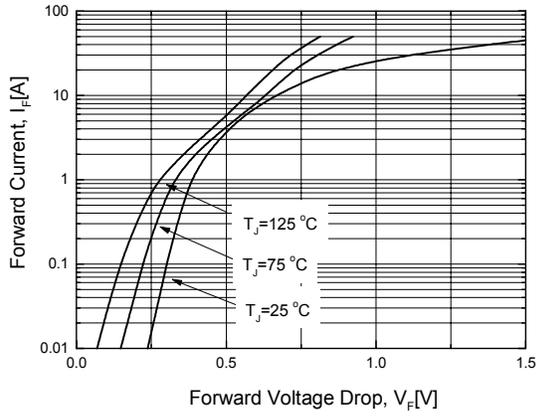


Figure 2. Typical Reverse Current vs. Reverse Voltage (per diode)

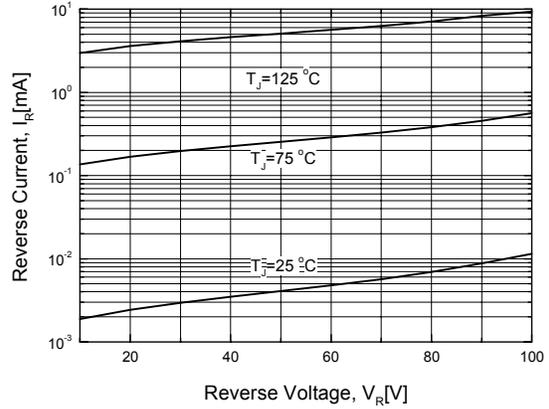


Figure 3. Typical Junction Capacitance (per diode)

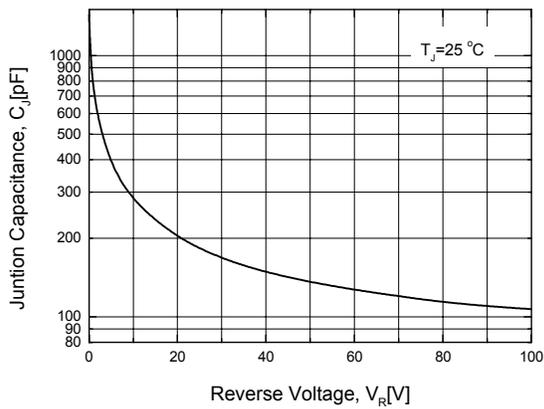


Figure 4. Forward Current Derating Curve

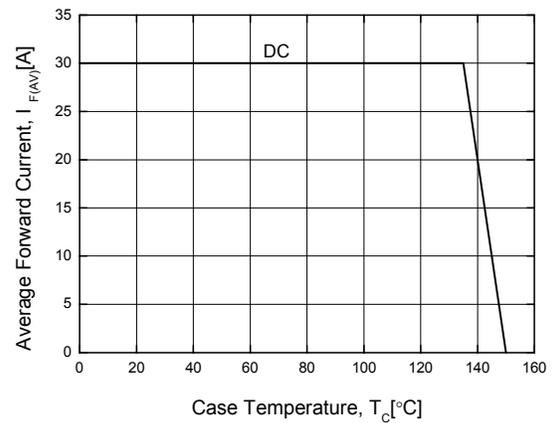


Figure 5. Non-Repetitive Surge Current (per diode)

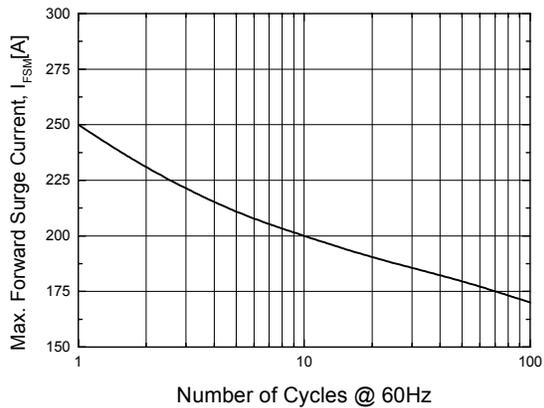
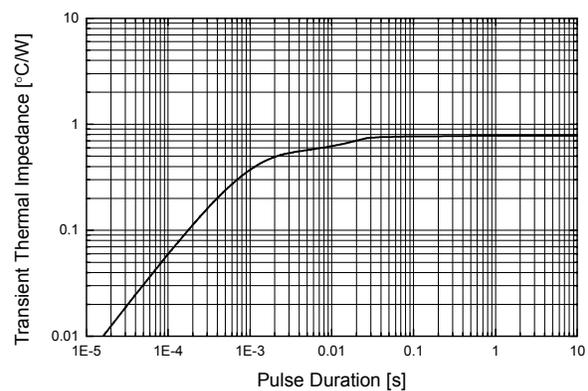


Figure 6. Thermal Impedance Characteristics (per diode)



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