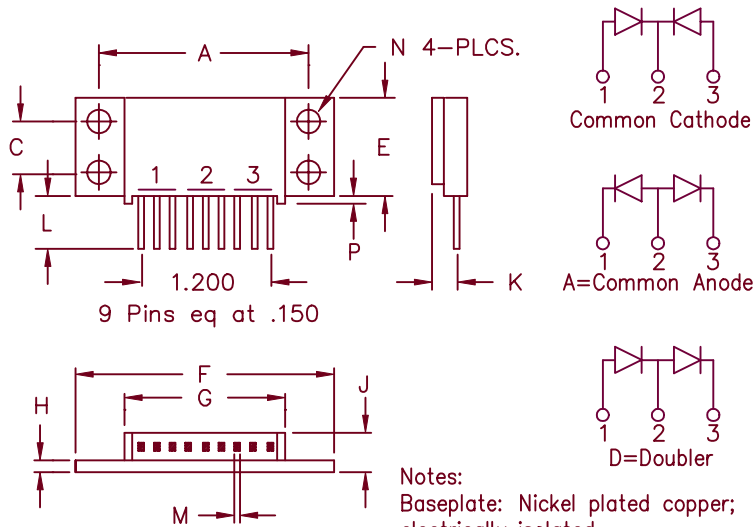


# Schottky PowerMod 'OR'ing Rectifier FST15515



Notes:  
Baseplate: Nickel plated copper;  
electrically isolated  
Pins: Nickel plated copper

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	1.995	2.005	50.67	50.93	
C	0.495	0.506	12.57	12.83	
E	0.990	1.010	25.15	25.65	
F	2.390	2.410	60.71	61.21	
G	1.490	1.510	37.85	38.35	
H	0.120	0.130	3.05	3.30	
J	---	0.400	---	10.16	
K	0.240	0.260	6.10	6.60	to Lead $\varnothing$
L	0.490	0.510	12.45	12.95	
M	0.040	.050	1.02	1.27	Square Dia
N	0.175	0.195	4.45	4.95	
P	0.032	0.052	0.81	1.32	

Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST15515*	155CMQ015	15V	15V

\*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Low Forward Voltage Drop
- Guard Ring for Reverse Protection
- 15V @ 75A/leg
- Electrically isolated base

## Electrical Characteristics

Average forward current per leg	$I_{F(AV)}$ 75 Amps	$T_C = 107^\circ\text{C}$
Average forward current per pkg	$I_{F(AV)}$ 150 Amps	$T_C = 107^\circ\text{C}$
Maximum surge current per leg	$I_{FSM}$ 1000 Amps	8.3 ms, half sine $T_J = 150^\circ\text{C}$
Max repetitive peak reverse current per leg	$I_{R(OV)}$ 2 Amps	$f = 1 \text{ KHz}, 25^\circ\text{C}, 1 \mu\text{sec}$ Square wave
Max peak forward voltage per leg	$V_{FM}$ 0.48 Volts	$I_{FM} = 75\text{A}; T_J = 25^\circ\text{C}^*$
Max peak forward voltage per leg	$V_{FM}$ 0.36 Volts	$I_{FM} = 75\text{A}; T_J = 150^\circ\text{C}^*$
Max peak reverse current per leg	$I_{RM}$ 5 mA	$V_{RRM}, T_J = 25^\circ\text{C}$
Minimum Isolation Voltage	$V_{ISOL}$ 1000VDC	any terminal to base
Typical junction capacitance per leg	$C_J$ 4600 pF	$V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temp range	$T_{STG}$	$-55^\circ\text{C}$ to $175^\circ\text{C}$
Operating junction temp range	$T_J$	$-55^\circ\text{C}$ to $150^\circ\text{C}$
Max thermal resistance per leg	$R_{\theta JC}$	$1.0^\circ\text{C/W}$ Junction to case
Max thermal resistance per pkg.	$R_{\theta JC}$	$0.5^\circ\text{C/W}$ Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	$0.1^\circ\text{C/W}$ Case to sink
Mounting torque		15–20 inch pounds
Weight		2.5 ounces (71 grams) typical

# FST15515

Figure 1  
Typical Forward Characteristics

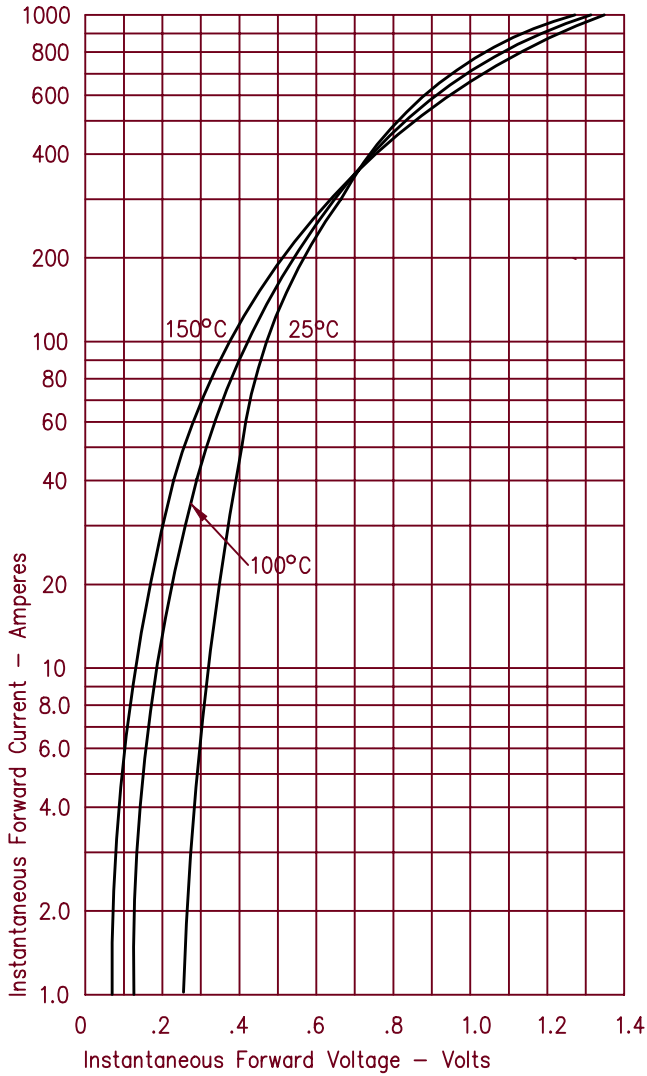


Figure 3  
Typical Junction Capacitance

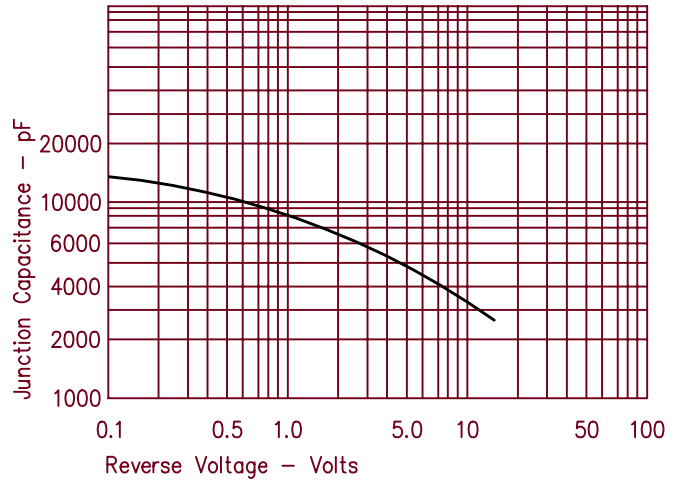


Figure 4  
Forward Current Derating

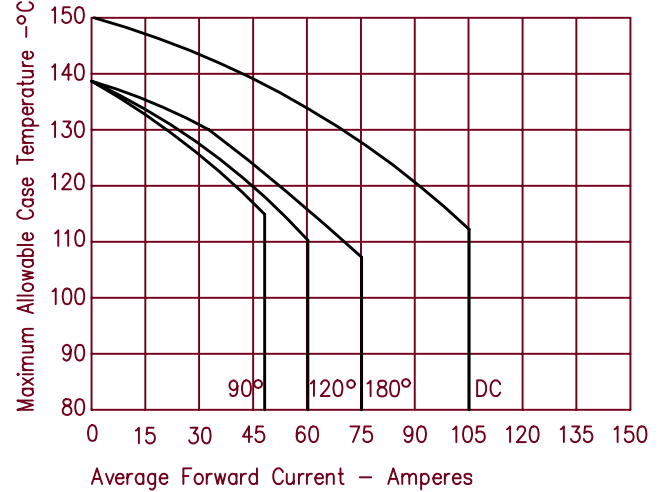


Figure 2  
Typical Reverse Characteristics

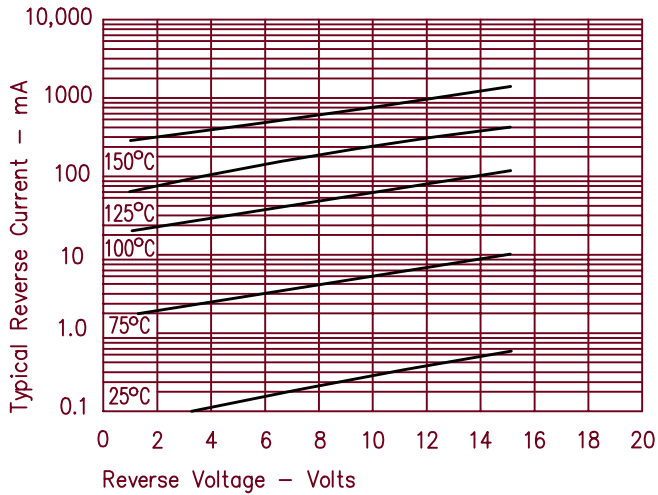


Figure 5  
Maximum Forward Power Dissipation

