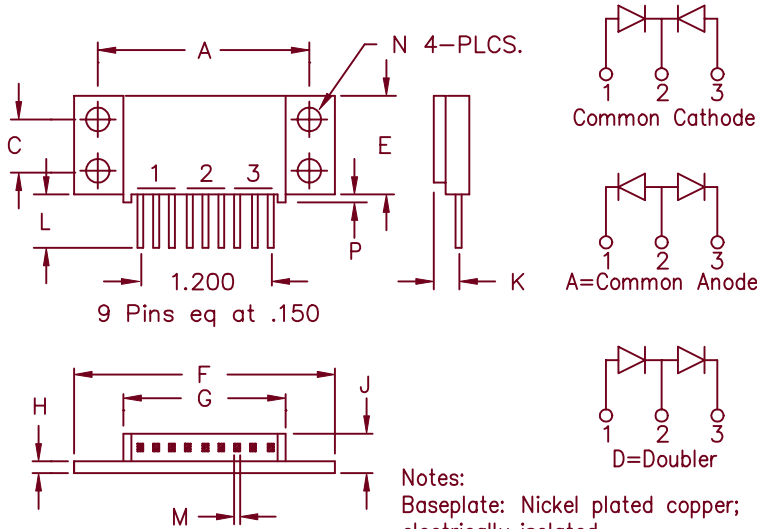


# Schottky Powermod FST19330 — FST19345



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	6.60to	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	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST19330*	30V	30V
FST19335*	35V	35V
FST19340*	40V	40V
FST19345*	45V	45V

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

- Guard Ring Protection
- Hot Base
- Schottky Barrier Rectifier
- Low Forward Voltage
- Reverse Energy Tested
- $V_{RRM}$  30 to 45 Volts

## Electrical Characteristics

Average Forward Current per pkg.	$I_{F(AV)}$ 300 Amps	$T_C = 85^\circ\text{C}$ , Square wave, $R_{\theta JC} = 0.25^\circ\text{C/W}$
Average Forward Current per leg	$I_{F(AV)}$ 150 Amps	$T_C = 85^\circ\text{C}$ , Square wave, $R_{\theta JC} = 0.5^\circ\text{C/W}$
Maximum Surge Current per leg	$I_{FSM}$ 1500 Amps	8.3ms, half sine, $T_J = 150^\circ\text{C}$
Max. Peak Forward Voltage per leg	$V_{FM}$ 0.40 Volts	$I_{FM} = 100\text{A}; T_J = 150^\circ\text{C}^*$
Max. Peak Forward Voltage per leg	$V_{FM}$ 0.52 Volts	$I_{FM} = 100\text{A}; T_J = 25^\circ\text{C}^*$
Max. Peak Reverse Current per leg	$I_{RM}$ 2A	$V_{RRM}, T_J = 125^\circ\text{C}^*$
Max. Peak Reverse Current per leg	$I_{RM}$ 10 mA	$V_{RRM}, T_J = 25^\circ\text{C}$
Typical Junction Capacitance per leg	$C_J$ 5500 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 $150^\circ\text{C}$
Operating junction temp range	$T_J$	$-55^\circ\text{C}$ to $150^\circ\text{C}$
Max thermal resistance per leg	$R_{\theta JC}$	$0.5^\circ\text{C/W}$ Junction to case
Max thermal resistance per pkg.	$R_{\theta JC}$	$0.25^\circ\text{C/W}$ 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		2.3 ounces (58.5 grams) typical

# FST19330

# — FST19345

Figure 1  
Typical Forward Characteristics – Per Leg

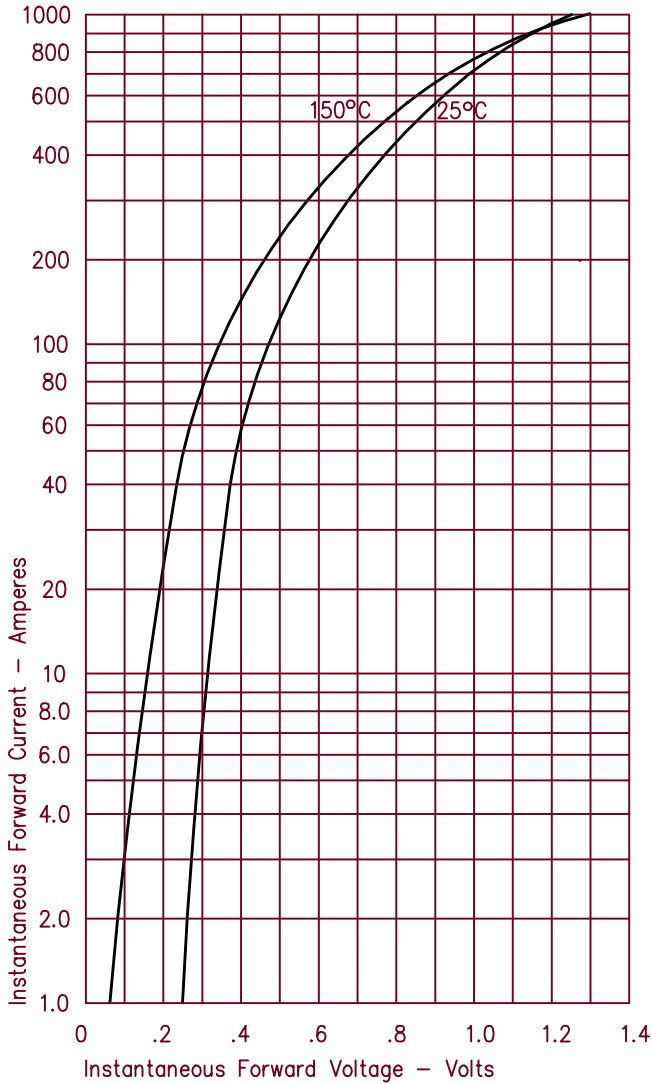


Figure 3  
Typical Junction Capacitance – Per Leg

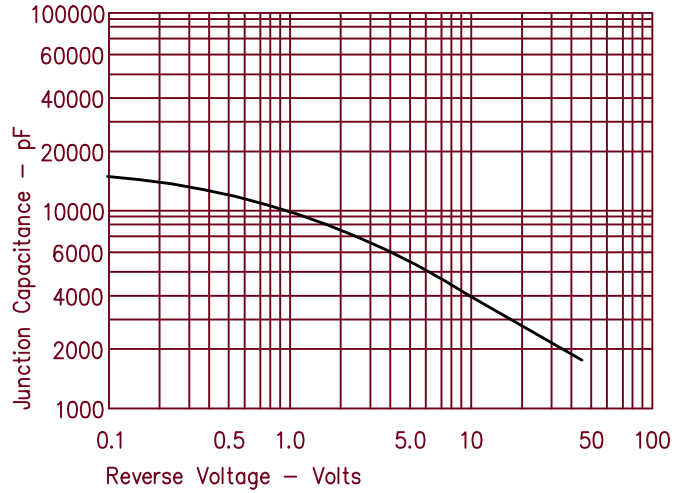


Figure 4  
Forward Current Derating – Per Leg

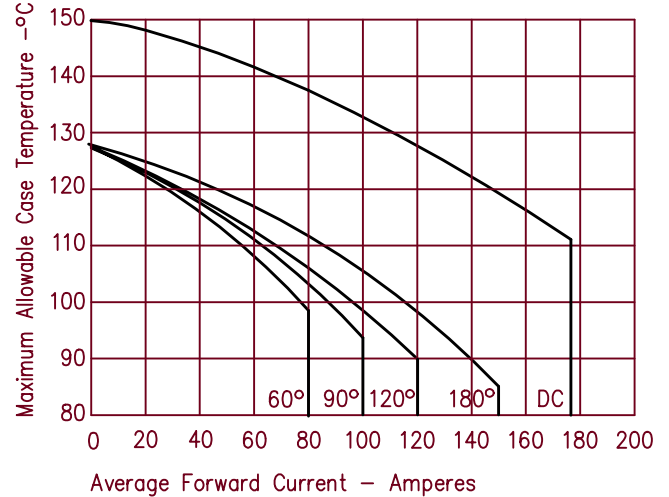


Figure 2  
Typical Reverse Characteristics – Per Leg

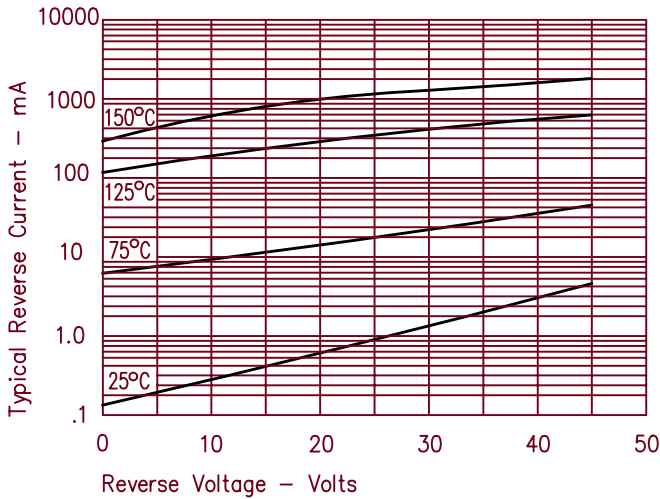


Figure 5  
Maximum Forward Power Dissipation – Per Leg

