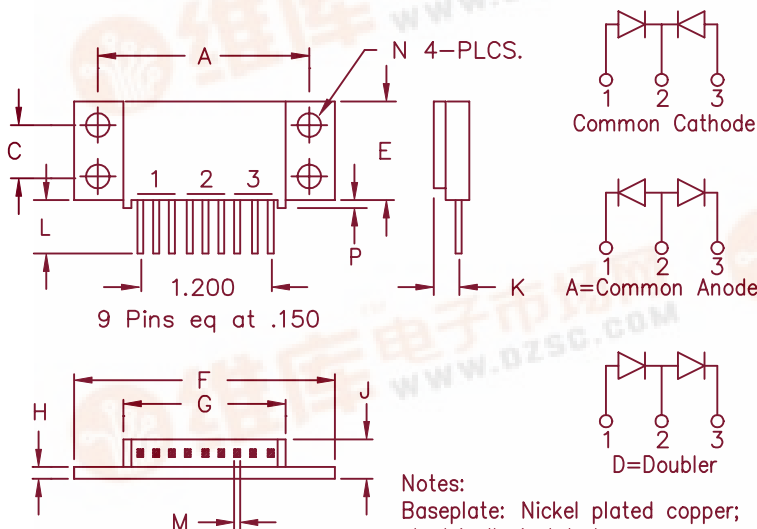


FST19330 — FST19345



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 ϕ
L	0.490	0.510	12.45	12.95	
M	0.040	.050	1.02	1.27	Square
N	0.175	0.195	4.45	4.95	Dia
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

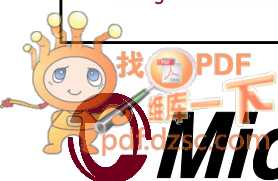
Average Forward Current per pkg.	$I_{F(AV)}$ 300 Amps
Average Forward Current per leg	$I_{F(AV)}$ 150 Amps
Maximum Surge Current per leg	I_{FSM} 1500 Amps
Max. Peak Forward Voltage per leg	V_{FM} 0.40 Volts
Max. Peak Forward Voltage per leg	V_{FM} 0.52 Volts
Max. Peak Reverse Current per leg	I_{RM} 2A
Max. Peak Reverse Current per leg	I_{RM} 10 mA
Typical Junction Capacitance per leg	C_j 5500 pF

$T_C = 85^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.25^\circ\text{C/W}$
 $T_C = 85^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.5^\circ\text{C/W}$
 8.3ms, half sine, $T_J = 150^\circ\text{C}$
 $I_{FM} = 100\text{A}; T_J = 150^\circ\text{C}^*$
 $I_{FM} = 100\text{A}; T_J = 25^\circ\text{C}^*$
 $V_{RRM}, T_J = 125^\circ\text{C}^*$
 $V_{RRM}, T_J = 25^\circ\text{C}$
 $V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	-55°C to 150°C
Operating junction temp range	T_J	-55°C to 150°C
Max thermal resistance per leg	$R_{\theta JC}$	0.5°C/W Junction to case
Max thermal resistance per pkg.	$R_{\theta JC}$	0.25°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.1°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

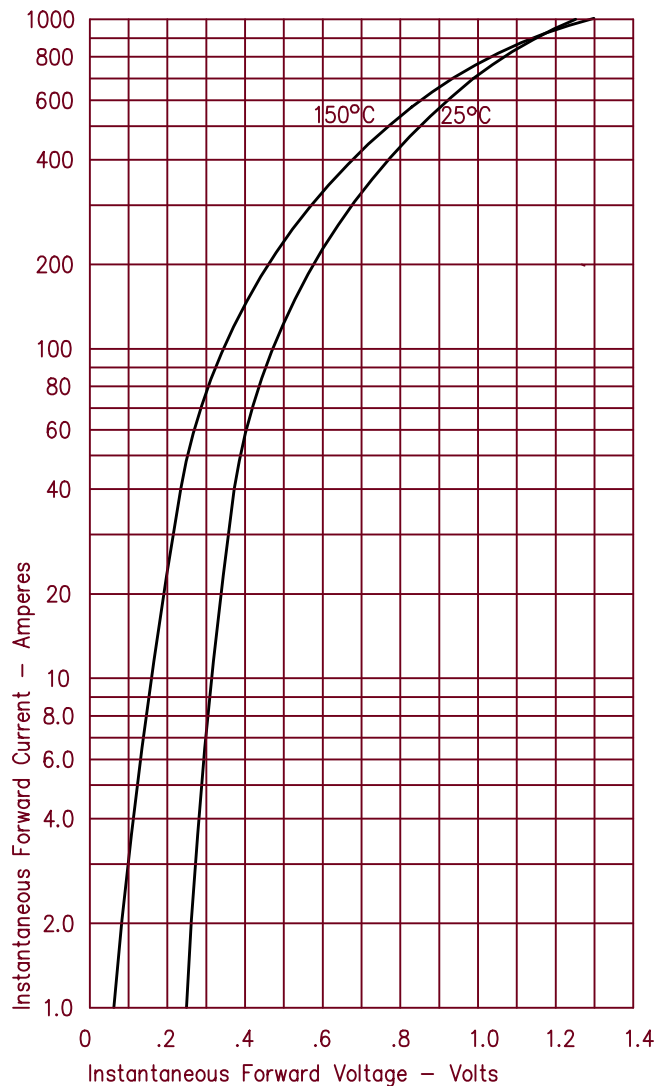


Figure 3
Typical Junction Capacitance – Per Leg

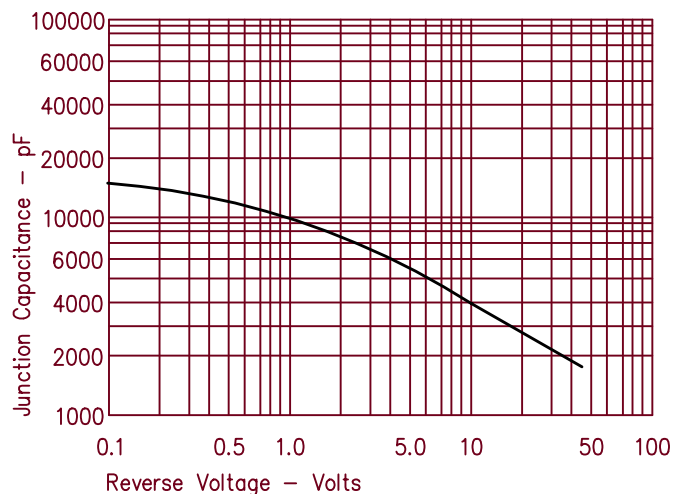


Figure 4
Forward Current Derating – Per Leg

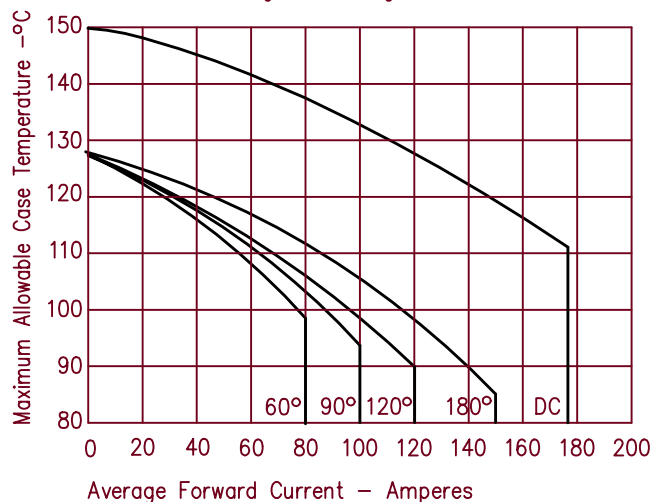


Figure 2
Typical Reverse Characteristics – Per Leg

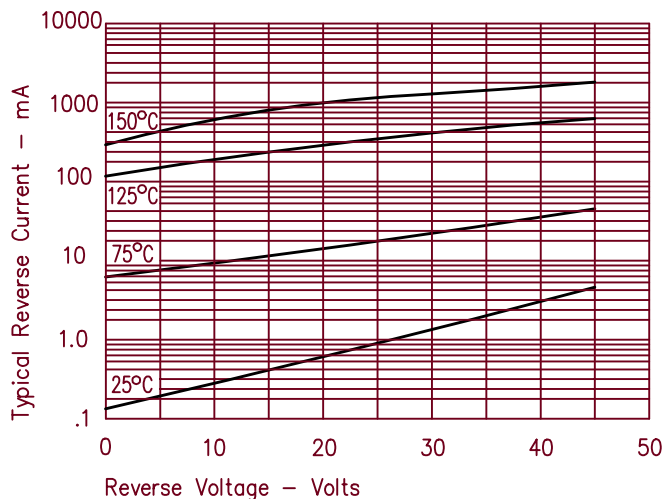


Figure 5
Maximum Forward Power Dissipation – Per Leg

