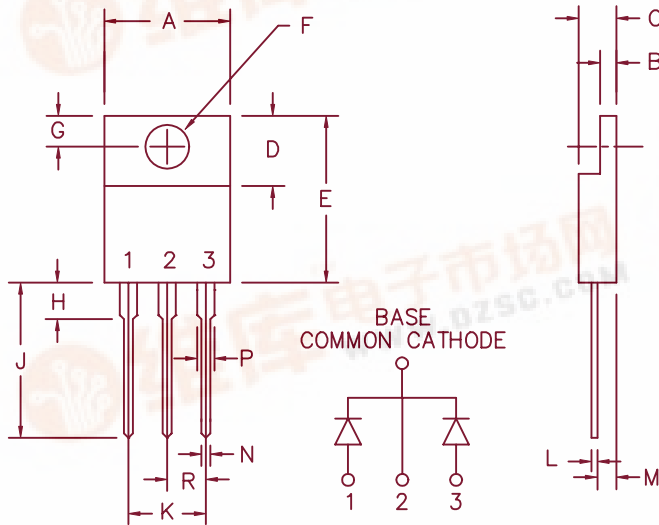


# 40 Amp Schottky ORing Rectifier FST4515



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.390	.415	9.91	10.54	
B	.045	.055	1.14	1.40	
C	.180	.190	4.57	4.83	
D	.245	.260	6.22	6.60	
E	.550	.650	13.97	16.51	
F	.139	.161	3.53	4.09	Dia.
G	.100	.135	2.54	3.43	
H	---	.250	---	6.35	
J	.500	.580	12.70	14.73	
K	.190	.210	4.83	5.33	
L	.014	.022	.357	.559	
M	.080	.115	2.03	2.92	
N	.015	.040	.380	1.02	
P	.045	.070	1.14	1.78	
R	.090	.110	2.29	2.79	

## PLASTIC TO-220AB

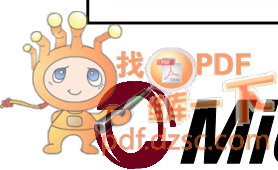
Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST4515	40L15CT STPS40L15CT	15V	15V

- Schottky barrier rectifier
- $V_F @ 20A, 125^\circ C = 0.29V$
- $125^\circ C$  Junction temperature
- High surge capacity
- Guard ring for reverse protection

Electrical Characteristics			
Average Forward Current per leg	$I_{F(AV)}$ 20 Amps	$T_C = 105^\circ C$	
Average Forward Current per pkg.	$I_{F(AV)}$ 40 Amps	$T_C = 105^\circ C$	
Maximum Surge Current per leg	$I_{FSM}$ 250 Amps	8.3ms, half sine	
Max. repetitive reverse current	$I_{R(OV)}$ 2 Amps	$f = 1KHZ, 25^\circ C$	
Max. Peak Forward Voltage per leg	$V_{FM}$ 0.40 Volts	$I_{FM} = 20A, T_J = 25^\circ C^*$	
Typ. Peak Forward Voltage per leg	$V_{FM}$ 0.29 Volts	$I_{FM} = 20A, T_J = 125^\circ C^*$	
Max. Peak Reverse Current per leg	$I_{RM}$ 8 mA	$V_{RRM}, T_J = 25^\circ C$	
Typ. Peak Reverse Current per leg	$I_{RM}$ 320 mA	$V_{RRM}, T_J = 100^\circ C^*$	
Typ. Peak Reverse Current per leg	$I_{RM}$ 175 mA	$V_R = 5.0V, T_J = 100^\circ C^*$	
Typical junction capacitance per leg	$C_J$ 1550 pF	$V_R = 5.0V, T_J = 25^\circ C$	

\*Pulse test: Pulse width 300  $\mu sec$ . Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temp range	TSTG	-55 $^\circ C$ to + 150 $^\circ C$
Operating junction temp range	TJ	-55 $^\circ C$ to + 125 $^\circ C$
Max thermal resistance per leg	R $\theta$ JC	1.5 $^\circ C/W$ Junction to case
Max thermal resistance per pkg	R $\theta$ JC	0.8 $^\circ C/W$ Junction to case
Mounting torque		8-12 inch pounds (6-32 screw)
Weight		.06 ounces (1.8 grams) typical



COLORADO

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2-25-03 Rev. 3

# FST4515

Figure 1  
Typical Forward Characteristics – Per Leg

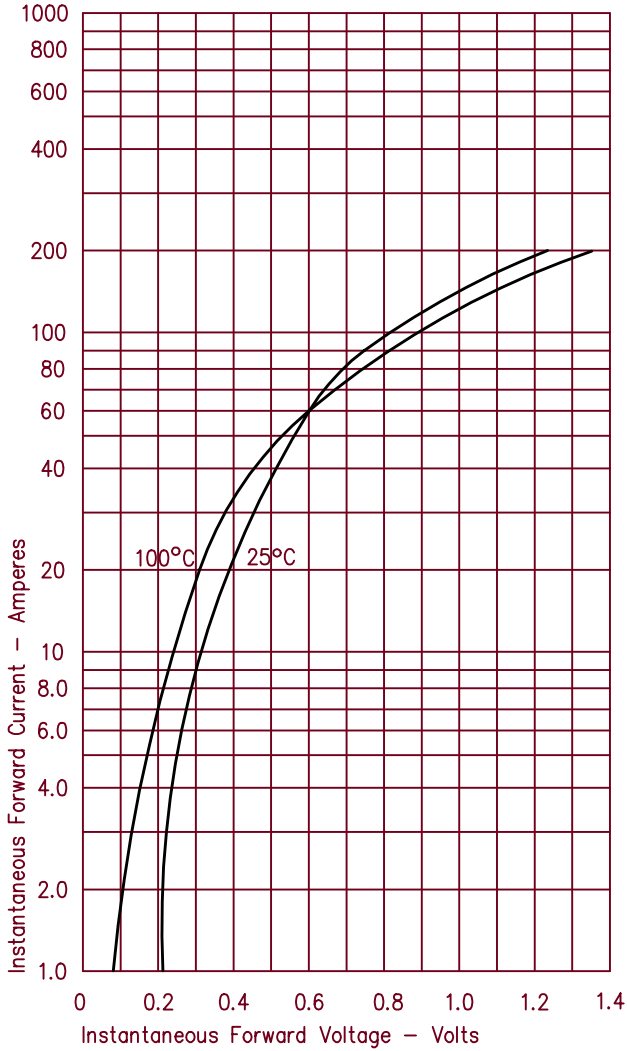


Figure 3  
Typical Junction Capacitance – Per Leg

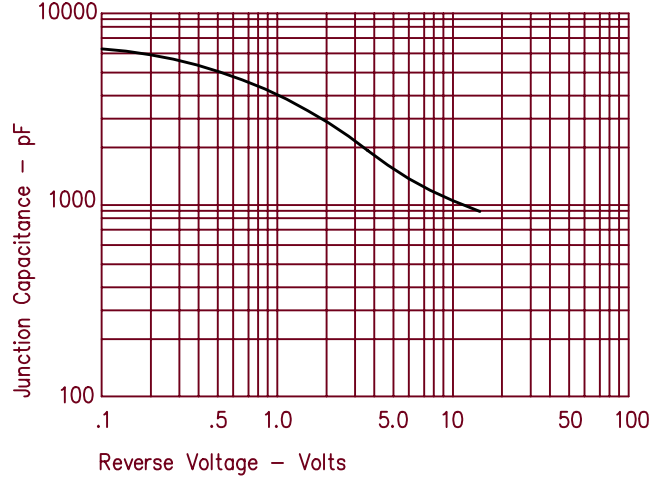


Figure 4  
Forward Current Derating – Per Leg

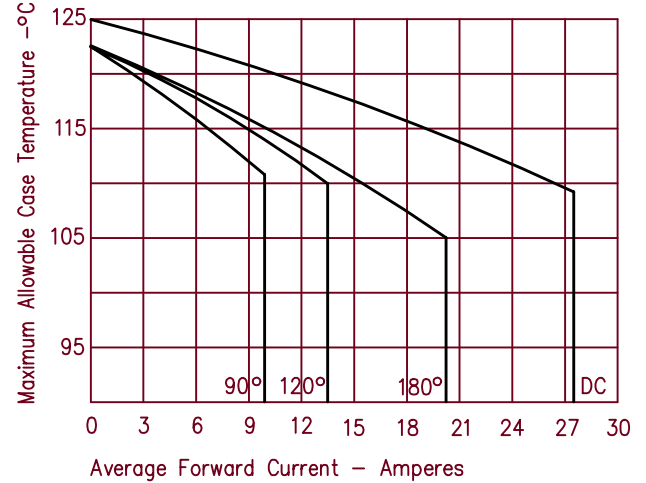


Figure 2  
Typical Reverse Characteristics – Per Leg

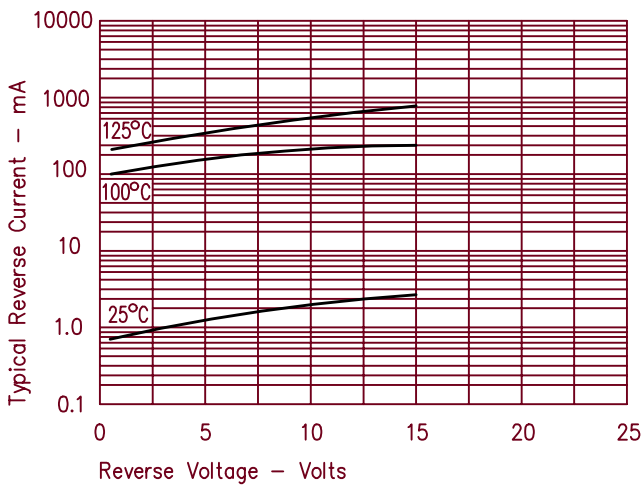


Figure 5  
Maximum Forward Power Dissipation – Per Leg

