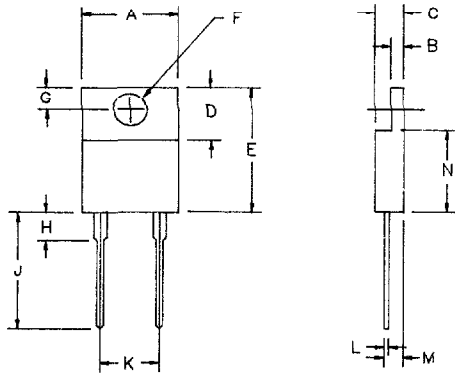


# 16 Amp Schottky Barrier Rectifiers MS1625 – MS1645



PLASTIC TO220A

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.390	.415	9.90	10.5	
B	.050	.055	1.27	1.40	
C	.180	.185	4.57	4.70	
D	.248	.260	6.30	6.60	
E	.590	.605	14.98	15.40	
F	.145	.150	3.68	3.81	Dia.
G	.108	.120	2.74	3.05	
H	.163	.170	4.14	4.32	
J	.540	.570	13.72	14.5	
K	.200	.205	5.08	5.21	
L	.021	.025	.533	.635	
M	.125	.140	3.18	3.56	
N	.335	.342	8.50	8.69	

Microsemi Catalog Number	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage	
MS1625	25V	25V	<ul style="list-style-type: none"> <li>• Schottky barrier rectifier</li> <li>• Guard ring for reverse protection</li> <li>• Low power loss, high efficiency</li> <li>• High surge capacity</li> <li>• <math>V_{RRM}</math> 25 to 45 Volts</li> </ul>
MS1635	35V	35V	
MS1645	45V	45V	

Electrical Characteristics		
Average Forward Current	$I_F(AV)$ 16 Amps	$T_C = 153^\circ C$ , Square wave, $R_{\theta JC} = 2.0^\circ C/W$
Maximum Surge Current	$I_{FSM}$ 600 Amps	8.3ms, half sine, $T_J = 175^\circ C$
Max. Peak Forward Voltage	$V_{FM}$ .56 Volts	$I_{FM} = 16A$ , $T_J = 150^\circ C^*$
Max. Peak Forward Voltage	$V_{FM}$ .67 Volts	$I_{FM} = 16A$ , $T_J = 25^\circ C^*$
Max. Peak Reverse Current	$I_{RM}$ 10 mA	$V_{RRM}$ , $T_J = 125^\circ C^*$
Max. Peak Reverse Current	$I_{RM}$ 250 $\mu A$	$V_{RRM}$ , $T_J = 25^\circ C$
Typical Junction Capacitance	$C_J$ 850 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	$T_{STG}$	$-40^\circ C$ to $175^\circ C$
Operating junction temp range	$T_J$	$-40^\circ C$ to $175^\circ C$
Max thermal resistance	$R_{\theta JC}$	$2.0^\circ C/W$
Mounting torque		15 inch pounds maximum (6-32 screw)
Typical Weight		.08 ounces (2.3 grams) typical

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# MS1625 — MS1645



Figure 1  
Typical Forward Characteristics

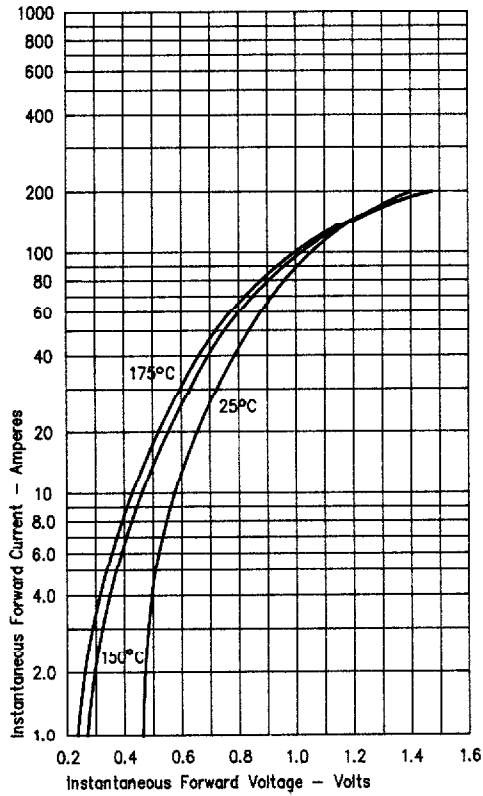


Figure 3  
Typical Junction Capacitance

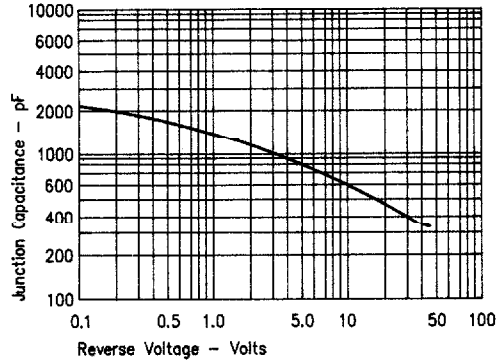


Figure 4  
Forward Current Derating

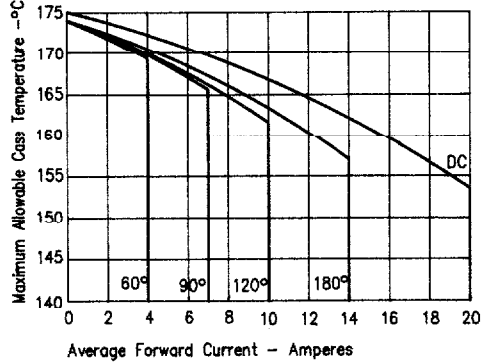


Figure 2  
Typical Reverse Characteristics

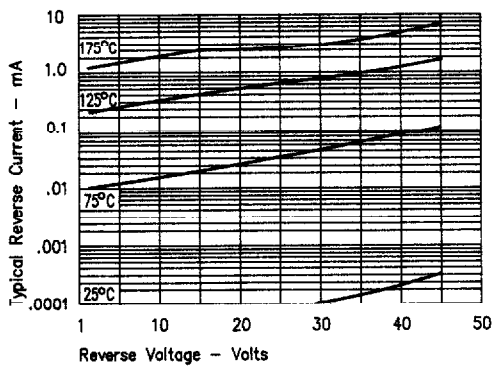


Figure 5  
Maximum Forward Power Dissipation

