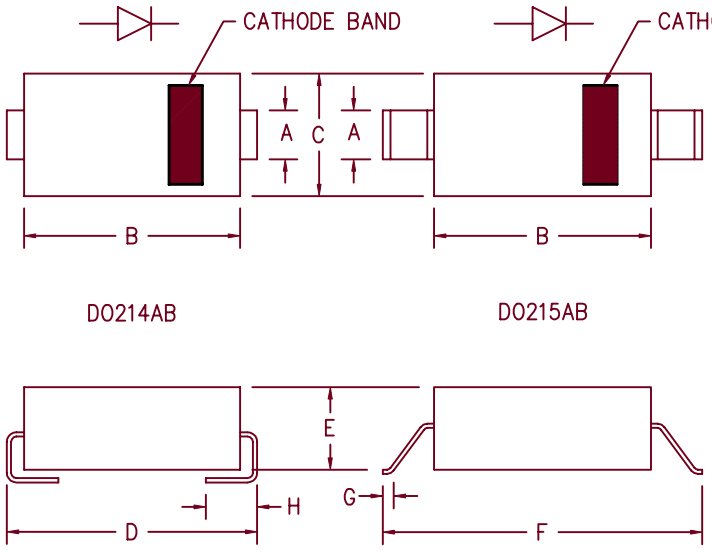
3 Amp Schottky Rectifier

5820SM – 5822SM



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	.117	.123	2.97	3.12	
B	.260	.280	6.60	7.11	
C	.220	.245	5.59	6.22	
D	.307	.322	7.80	8.18	
E	.075	.095	1.91	2.41	
F	.380	.400	9.65	10.16	
G	.025	.040	.640	1.02	
H	.030	.060	.760	1.52	

Microsemi Catalog Number	Industry Part No.	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
5820SM*	MBRS320T3 SK32	20V	20V
5821SM*	MBRS330T3 SK33	30V	30V
5822SM*	MBRS340T3 SK34	40V	40V

*Add Suffix J For J Lead or G For Gull Wing Lead Configuration

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- High Reliability
- High Current Capability
- Surface mount package

Electrical Characteristics

		5820SM	5821SM	5822SM	
Average forward current	$I_{F(AV)}$	3A	3A	3A	Square wave, T_L = 127°C, $R_{\theta JL}$ = 20°C/W
Maximum surge current	I_{FSM}	150A	150A	150A	8.3ms, half sine, T_J = 150°C
Max peak forward voltage	V_{FM}	.36V	.37V	.38V	I_{FM} = 1A, T_J = 25°C*
Max peak forward voltage	V_{FM}	.46V	.48V	.50V	I_{FM} = 3A, T_J = 25°C*
Max peak forward voltage	V_{FM}	.65V	.67V	.70V	I_{FM} = 9.4A, T_J = 25°C*
Max peak reverse current	I_{RM}	1.5mA	1.5mA	1.5mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J	265pF	265pF	265pF	V_R = 5.0V, T_J = 25°C

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

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	−55°C to 150°C
Operating junction temp range	T_J	−55°C to 150°C
Maximum thermal resistance	$R_{\theta JL}$	20°C/W Junction to Lead
Weight		.008 ounces (.22 grams) typical

11–21–01 Rev. 3

COLORADO Microsemi
800 Hoyt Street
Broomfield, CO. 80020
PH: (303) 469–2161
FAX: (303) 466–3775
www.microsemi.com

5820SM–5822SM

Figure 1
Typical Forward Characteristics

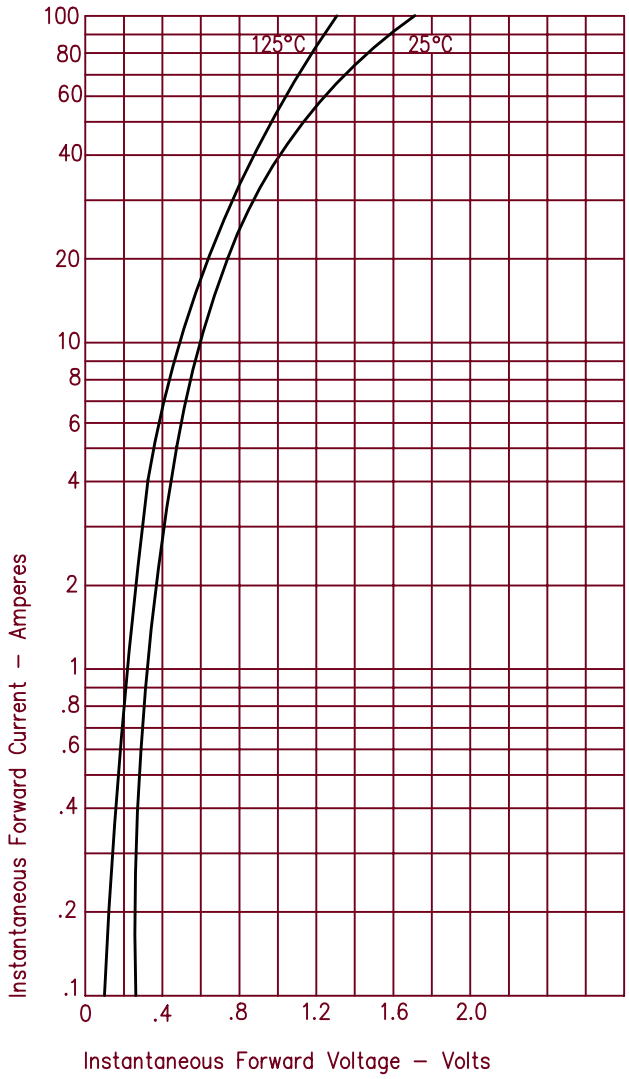


Figure 2
Typical Reverse Characteristics

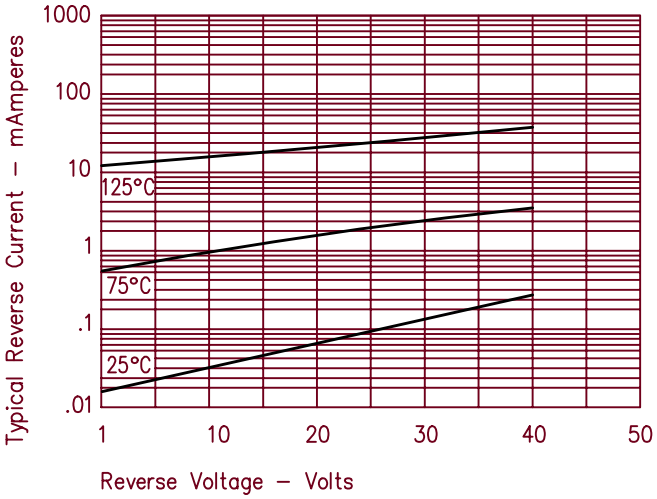
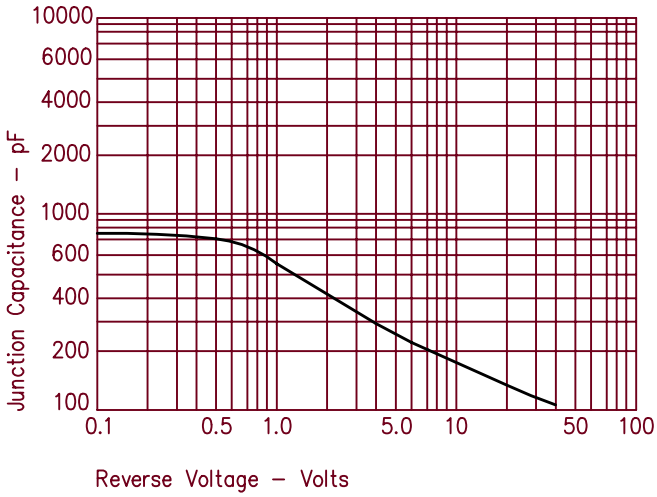



Figure 3
Typical Junction Capacitance