



Micro Commercial Corp.
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5820SM THRU 5822SM

Features

- For Surface Mount Applications
- Extremely Low Thermal Resistance
- Easy Pick And Place
- High Temp Soldering: 250°C for 10 Seconds At Terminals\
- High Current Capability With Low Forward Voltage

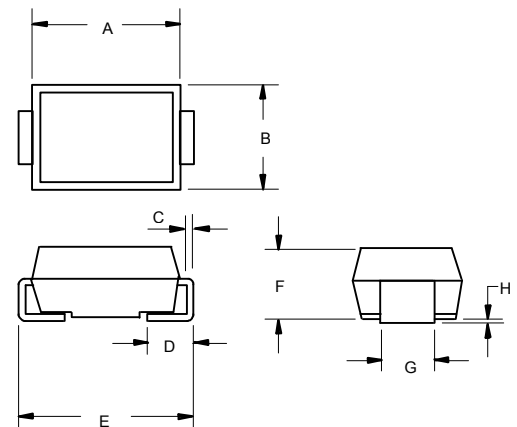
Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 28°C/W Junction To Ambient

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
5820SM	---	20V	14V	20V
5821SM	---	30V	21V	30V
5822SM	---	40V	28V	40V

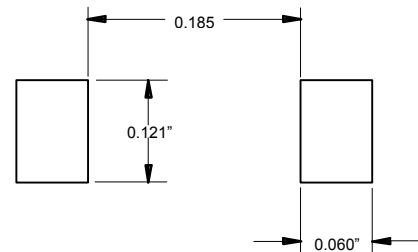
3 Amp Schottky Rectifier 20 - 40 Volts

DO-214AB (SMCJ)(LEAD FRAME)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.260	.280	6.60	7.11	
B	.220	.245	5.59	6.22	
C	.006	.012	0.15	0.31	
D	.030	.060	0.76	1.52	
E	.305	.320	7.75	8.13	
F	.079	.103	2.00	2.62	
G	.108	.128	2.75	3.25	
H	.002	.008	0.050	0.203	

SUGGESTED SOLDER PAD LAYOUT

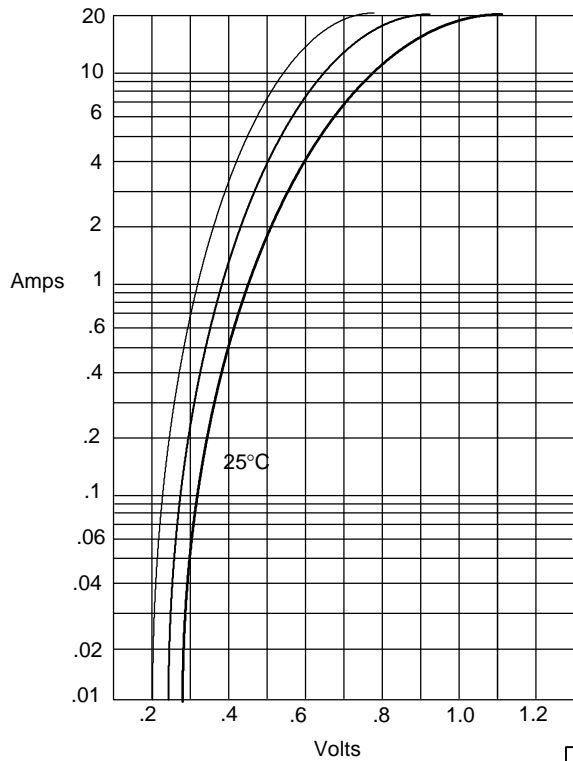


Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	3.0A	$T_A = 85^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	80A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	.475V .500V .525V	$I_{FM} = 3.0A$; $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	2.0mA 20mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, $V_R=4.0V$

*Pulse test: Pulse width 300 μsec , Duty cycle 1%

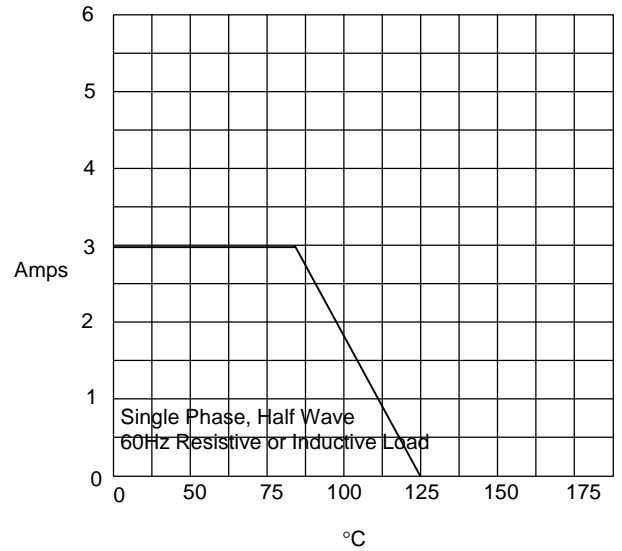
Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

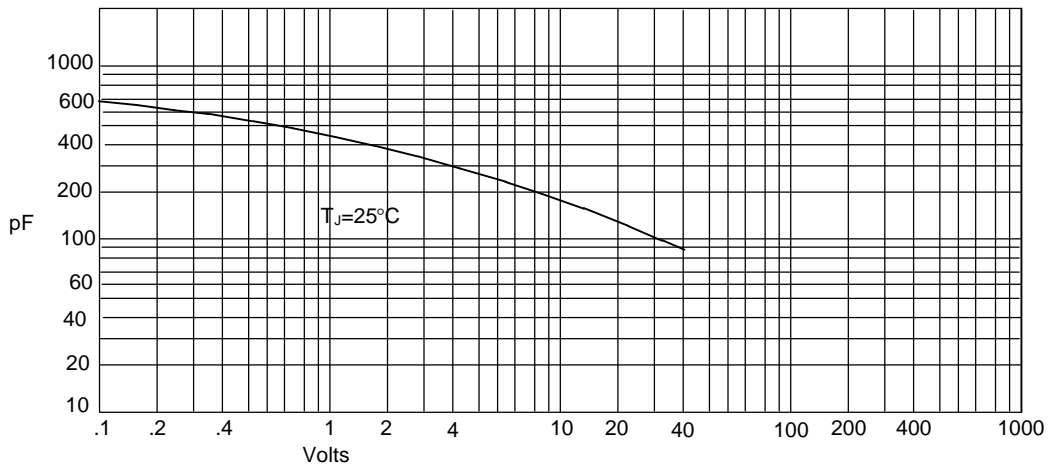
5820SM	—
5821SM	—
5822SM	—

Figure 2
Forward Derating Curve



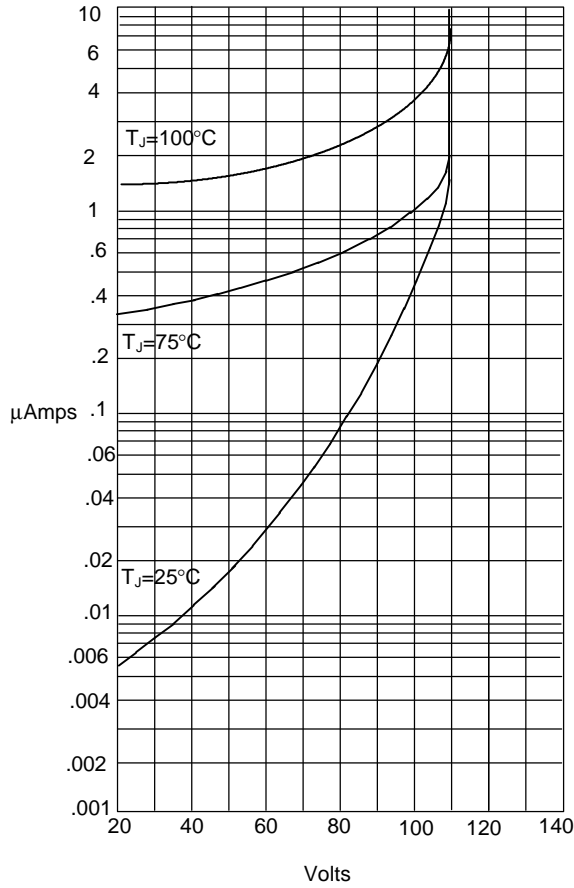
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance



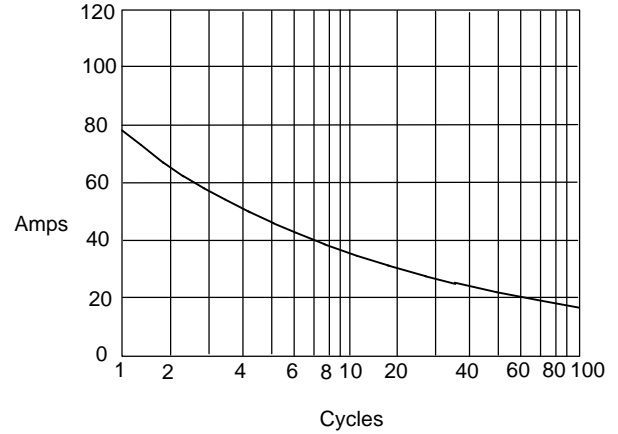
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles