

# Spice Model

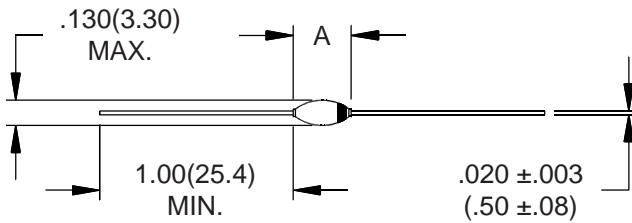


**M50SG**



## Electrical Characteristics and Maximum Ratings

Part Number	Working Reverse Voltage (V <sub>rw</sub> )	Average Rectified Current (I <sub>o</sub> )		Reverse Current @ V <sub>rw</sub> (I <sub>r</sub> )		Forward Voltage (V <sub>f</sub> )		1 Cycle Surge Current t <sub>p</sub> =8.3ms (I <sub>fsm</sub> )	Repetitive Surge Current (I <sub>frm</sub> )	Reverse Recovery Time (3) (T <sub>rr</sub> )	Thermal Impedance θ <sub>J-L</sub>			Junction Cap. @ 50VDC @ 1kHz (C <sub>j</sub> )
		55°C(1)	100°C(2)	25°C	100°C	25°C		25°C	25°C	25°C	25°C	L=.000	L=.125	L=.250
	Volts	mAmps	mAmps	µA	µA	Volts	mA	Amps	Amps	ns	°C/W	°C/W	°C/W	pF
M50SG	5000	50	25	0.1	10	8.0	25	4.0	0.8	3000	18	30	50	1.0



Part	A
M25SG M50SG M100SG	.300(7.62) MAX.
M160SG	.350(8.89) MAX.

Name	Parameter	Value	Units
IS	Reverse leakage current	1.00E-07	Amps
N	Emission coefficient	14.4	
T	Temperature	25	C
RS	Diode series resistance	1.0	Ohm
TT	Transit time	3000	nS
CJ0	Zero-bias junction capacitance	1.45	pF
VJ	Bulk junction potential	7.31	Volts
M	Grading coefficient	0.5	
EG	Energy-band gap	1.11	Volts
XTI	Temperature coefficient	3	
KF	Flicker-noise coefficient	0	
AF	Flicker-noise exponent	1	
FC	Coefficient for capacitance	0.5	
BV	Diode breakdown voltage	6000	Volts
IBV	Diode breakdown current	100	uAmps

Dimensions: In. (mm) \* All temperatures are ambient unless otherwise noted. \* Data subject to change without notice.



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