

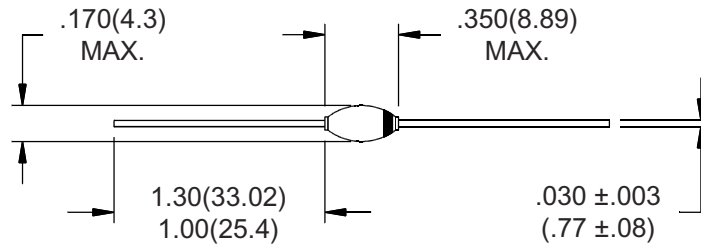
# Spice Model



**X50SG**



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 J-L			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	
	Volts	mAmps	mAmps	µA	µA	Volts	mA	Amps	Amps	ns	°C/W	°C/W	°C/W	pF
X50SG	5000	150	75	1.0	20	8.0	100	10.0	2.0	3000	5	12	21.5	3.0



<b>IS</b>	Reverse leakage current	2.50E-07	Amps
<b>N</b>	Emission coefficient	14.5	
<b>T</b>	Temperature	25	C
<b>RS</b>	Diode series resistance	1.4	Ohm
<b>TT</b>	Transit time	3000	nS
<b>CJ0</b>	Zero-bias junction capacitance	3.87	pF
<b>VJ</b>	Bulk junction potential	6.41	Volts
<b>M</b>	Grading coefficient	0.5	
<b>EG</b>	Energy-band gap	1.11	Volts
<b>XTI</b>	Temperature coefficient	3	
<b>KF</b>	Flicker-noise coefficient	0	
<b>AF</b>	Flicker-noise exponent	1	
<b>FC</b>	Coefficient for capacitance	0.5	
<b>BV</b>	Diode breakdown voltage	6000	Volts
<b>IBV</b>	Diode breakdown current	100	uAmps



**Voltage Multipliers, Inc.**  
8711 W. Roosevelt Ave.  
Visalia, CA 93291

Tel (559) 651-1402  
Fax (559) 651-0740  
www.voltagemultipliers.com