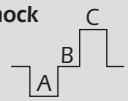
Reliability Condition

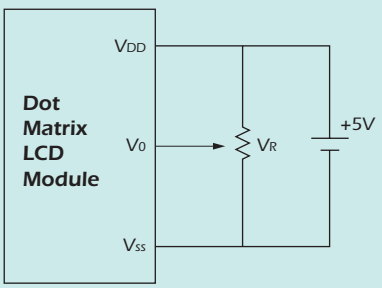
			TN Type		STN Type	
			Normal Temperature	Wide Temperature	Normal Temperature	Wide Temperature
Viewing Angle	Horizontal Φ		± 30°	± 30°	± 30°	± 30°
	Vertical θ (min)		10°C to 30°C	10°C to 30°C	-10°C to 40°C	-10°C to 40°C
Operating Temperature			-10°C to 70°C	-25°C to 80°C	0°C to 50°C	-20°C to 70°C
Storage Temperature			-20°C to 80°C	-35°C to 90°C	-20°C to 70°C	-30°C to 80°C
High Temperature (Power Off)			240 Hours @ 70°C	240 Hours @ 90°C	240 Hours @ 65°C	240 Hours @ 75°C
Low Temperature (Power Off)			240 Hours @ -20°C	240 Hours @ -35°C	240 Hours @ -15°C	240 Hours @ -25°C
High Temperature (Power On)			240 Hours @ 70°C	240 Hours @ 80°C	240 Hours @ 60°C	240 Hours @ 70°C
Low Temperature (Power On)			240 Hours @ -10°C	240 Hours @ -25°C	240 Hours @ -10°C	240 Hours @ -20°C
High Temperature & High Humidity			55°C / 90%RH 240 Hours	75°C / 90%RH 240 Hours	45°C / 90%RH 240 Hours	65°C / 90%RH 240 Hours
Thermal Shock 5 Cycles 		A	60 Min. @ -20°C	60 Min. @ -35°C	60 Min. @ -20°C	60 Min. @ -30°C
		B	5 Min. @ 25°C	5 Min. @ 25°C	5 Min. @ 25°C	25 Min. @ 25°C
		C	60 Min. @ 70°C	60 Min. @ 90°C	60 Min. @ 70°C	60 Min. @ 80°C
Expected Life			50,000 Hours	50,000 Hours	50,000 Hours	50,000 Hours

Power Supply Schematics

See individual module specification pages for voltage settings to obtain optimum contrast and viewing angle.

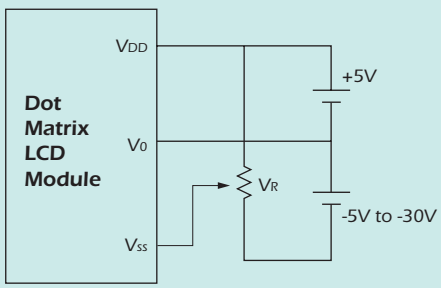
Note: V_R = Variable Resistor 10 Kohm to 22 Kohm for Adjusting Contrast.

1. For Single Source



For Module with Normal Temperature Range Fluid

2. For Double Source



For Module with Extended Temperature Range Fluid Wide Viewing Fluid