

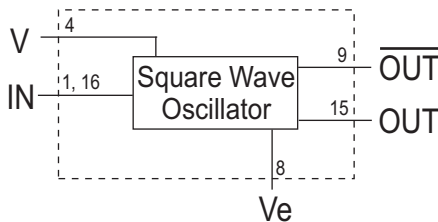
# 100K ECL Square Wave Generator Module

The 100K ECL Square Wave Generator Modules manufactured by Engineered Components Company are designed to provide a square wave output at a given frequency. These generators are both keyable and synchronizable, producing a continuous output train as long an ECL "low" is applied to the input. When the input switches to "low", the output goes "low" one half-cycle later and continues to output a continuous square wave output. When the input switches back to "high", the output will be forced to a "high" one half-cycle later. An inverted output is also supplied.

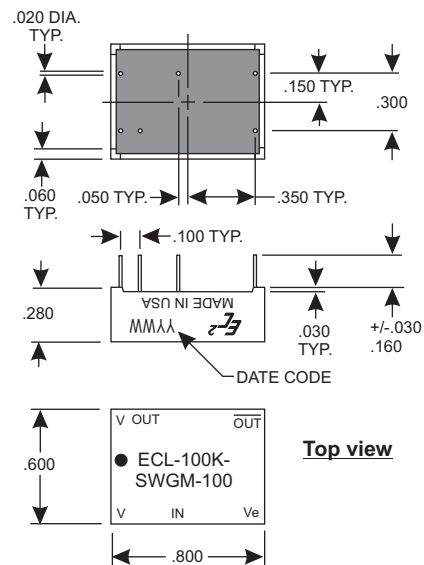
The MTBF on these modules, when calculated per MIL-HDBK-217, for a 50 deg.C ground fixed environment and with 50VDC applied, is in excess of 3.3 million hours. The temperature coefficient of delay is less than +/-200 ppm/deg.C over the operating temperature range of 0 to +85 deg. C.

The module is provided in a 16-pin DIP package, fully encapsulated in epoxy resin and is housed in a Diallyl Phthalate case, blue in color. The case marking is applied by silkscreen using white epoxy paint. The 6 copper leads are tin-lead plated and meet the solderability requirements of MIL-STD-202, Method 208.

## BLOCK DIAGRAM



## MECHANICAL DIAGRAM



Product Selection Table

Part Number	Nominal Output Frequency	Output Frequency Tolerance
ECL-100K-SWGM-50	50 MHz	+/-2%
ECL-100K-SWGM-55	55 MHz	+/-2%
ECL-100K-SWGM-60	60 MHz	+/-2%
ECL-100K-SWGM-65	65 MHz	+/-2%
ECL-100K-SWGM-70	70 MHz	+/-2%
ECL-100K-SWGM-75	75 MHz	+/-2%
ECL-100K-SWGM-80	80 MHz	+/-2%
ECL-100K-SWGM-85	85 MHz	+/-2%
ECL-100K-SWGM-90	90 MHz	+/-2%
ECL-100K-SWGM-95	95 MHz	+/-2%
ECL-100K-SWGM-100	100 MHz	+/-2%
ECL-100K-SWGM-110	110 MHz	+/-2%
ECL-100K-SWGM-120	120 MHz	+/-2%
ECL-100K-SWGM-130	130 MHz	+/-2%
ECL-100K-SWGM-140	140 MHz	+/-2%
ECL-100K-SWGM-150	150 MHz	+/-2%
ECL-100K-SWGM-160	160 MHz	+/-2%
ECL-100K-SWGM-170	170 MHz	+/-2%
ECL-100K-SWGM-180	180 MHz	+/-2%
ECL-100K-SWGM-190	190 MHz	+/-2%
ECL-100K-SWGM-200	200 MHz	+/-2%
ECL-100K-SWGM-210	210 MHz	+/-2%
ECL-100K-SWGM-220	220 MHz	+/-2%
ECL-100K-SWGM-230	230 MHz	+/-2%
ECL-100K-SWGM-240	240 MHz	+/-2%
ECL-100K-SWGM-250	250 MHz	+/-2%

Special modules can often be manufactured to provide for customer specific applications.

### Operating Specifications:

All measurements made at 25 deg. C  
 All measurements made with  $V_e = -4.5\text{VDC}$ ,  $V_c = 0\text{VDC}$   
 All measurements made with (1) 100K ECL output load  
 All measurements made with a 50 ohm pulldown resistor to -2VDC at the input and output

Operating Temperature: 0 to +85 deg. C  
 Storage Temperature: -55 to +125 deg. C

$V_{ee}$  Supply Voltage: -4.5 +/-5% VDC

$V_{cc}$  Supply Current: 80mA typical

Logic "High" Input:

Voltage: -1.165VDC min.

Current: 350uA max.

Logic "Low" Input:

Voltage: -1.475VDC max.

Current: 0.5uA min.

Logic "High" Voltage Out: -1.025VDC min.

Logic "Low" Voltage Out: -1.625VDC max.



**engineered components company**

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