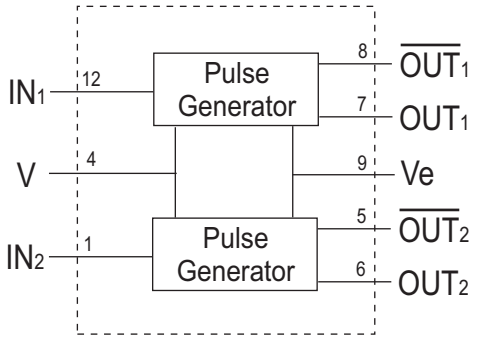
100K ECL Dual Pulse Generator Module

The 100K ECL Dual Pulse Generator Modules manufactured by Engineered Components Company are designed to provide a precise output pulse when triggered by variable pulse width inputs. Each module contains two separate pulse generators. These pulse generators provide a stable positive (OUT), as well as negative ($\overline{OUT}$), output pulse of the specified width for each rising edge of the input pulse. The input pulse must stay high for a minimum of 2ns. No output pulse occurs for each falling edge of the input pulse. Maximum input pulse repetition rates are shown in the table below.

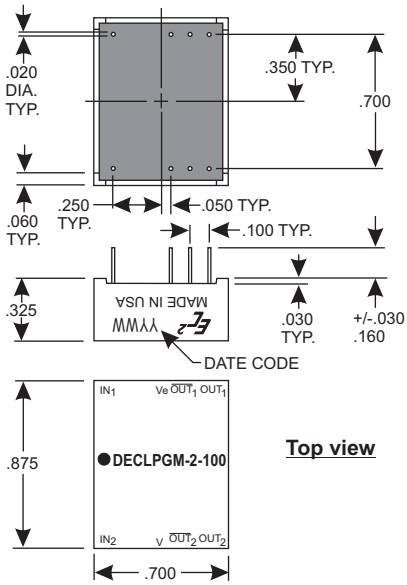
The MTBF on these modules, when calculated per MIL-HDBK-217, for a 50 deg.C ground fixed environment and with 50VDC applied, is in excess of 1.0 million hours. The temperature coefficient of delay is less than +/-300 ppm/deg.C over the operating temperature range of 0 to +85 deg. C.

The module is provided in a 12-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 8 copper leads are tin-lead plated and meet the solderability requirements of MIL-STD-202, Method 208.

BLOCK DIAGRAM



MECHANICAL DIAGRAM



Top view

Product Selection Table

Part Number	Pulse Width (in ns)	Maximum Pulse Rate (in Mhz)
DECLPGM-2-2	2.0 +/-0.2	200
DECLPGM-2-3	3.0 +/-0.3	133
DECLPGM-2-4	4.0 +/-0.4	100
DECLPGM-2-5	5.0 +/-0.5	80
DECLPGM-2-6	6.0 +/-0.6	66
DECLPGM-2-7	7.0 +/-0.7	57
DECLPGM-2-8	8.0 +/-0.8	50
DECLPGM-2-9	9.0 +/-0.9	44
DECLPGM-2-10	10.0 +/-1.0	40
DECLPGM-2-12	12.0 +/-1.0	33
DECLPGM-2-14	14.0 +/-1.0	28
DECLPGM-2-16	16.0 +/-1.0	25
DECLPGM-2-18	18.0 +/-1.0	22
DECLPGM-2-20	20.0 +/-1.0	20
DECLPGM-2-25	25.0 +/-1.0	16
DECLPGM-2-30	30.0 +/-1.0	13
DECLPGM-2-35	35.0 +/-1.0	11
DECLPGM-2-40	40.0 +/-1.0	10
DECLPGM-2-45	45.0 +/-1.0	9
DECLPGM-2-50	50.0 +/-1.0	8

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 Ve = -4.5VDC, Vc = 0VDC
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

Vee Supply Voltage: -4.5 +/-5% VDC
Vcc Supply Current: 155mA 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.

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