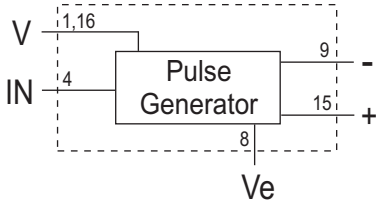
10K ECL Pulse Generator Module

The 10K ECL Pulse Generator Modules manufactured by Engineered Components Company are designed to provide a precise output pulse width when triggered by variable pulse width inputs. These pulse generators provide a stable positive (+), as well as negative(-), output pulse of the specified width for each rising edge of the input pulse. The input pulse must stay high for a minimum of 10ns. No output pulse occurs for each falling edge of the input pulse. Maximum input pulse repetition rates are shown in the table below.

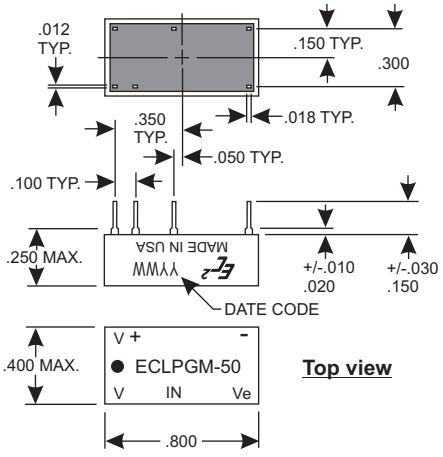
The MTBF on these modules, when calculated per MIL-HDBK-217, for a 50 deg.C ground fixed environment and with 50VDC applied, is in excess of 1.5 million hours. The temperature coefficient of delay is less than +/-300 ppm/deg.C over the operating temperature range of -30 to +85 deg. C.

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	Pulse Width (ns)	Maximum Pulse Rate (Mhz)
ECLPGM-5	5+/-1.0	98
ECLPGM-6	6+/-1.0	80
ECLPGM-7	7+/-1.0	70
ECLPGM-8	8+/-1.0	60
ECLPGM-9	9+/-1.0	54
ECLPGM-10	10+/-1.0	49
ECLPGM-15	15+/-1.0	32
ECLPGM-20	20+/-1.0	24
ECLPGM-25	25+/-1.0	19
ECLPGM-30	30+/-1.0	15
ECLPGM-35	35+/-1.5	13
ECLPGM-40	40+/-1.5	11
ECLPGM-45	45+/-1.5	10
ECLPGM-50	50+/-1.5	9
ECLPGM-60	60+/-1.5	8
ECLPGM-70	70+/-2.0	7
ECLPGM-75	75+/-2.0	6
ECLPGM-80	80+/-2.0	6
ECLPGM-90	90+/-3.0	5
ECLPGM-100	100+/-3.0	4

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 Vee = -5.2VDC, Vcc = 0VDC
All measurements made with (1) 10K ECL output load
All measurements made with a 100 ohm pulldown resistor to -2VDC at the input and output

Operating Temperature: -30 to +85 deg. C
Storage Temperature: -55 to +125 deg. C

Vee Supply Voltage: -5.2 +/-5% VDC
Vee Supply Current: 56mA typical
Logic "High" Input:
Voltage: -0.98VDC min.
Current: 265uA max.
Logic "Low" Input:
Voltage: -1.63VDC max.
Current: 0.5uA min.
Logic "High" Voltage Out: -0.96VDC min.
Logic "Low" Voltage Out: -1.65VDC max.

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