

**TECHNICAL DATA**

DATA SHEET 4135, REV. B PRELIMINARY

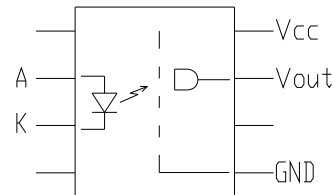
## High Data Rate Optocoupler

**Features:**

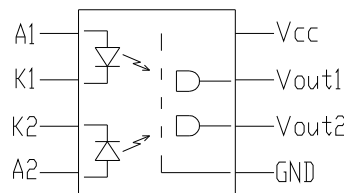
- Hermetic / Ceramic packages
- 60ns propagation delay
- 40Mbd Typical Signal Rate
- Low Input Current (1.6mA to 1.8mA)
- CMOS Output

**Applications:**

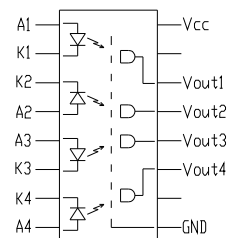
- High Speed Isolation
- Ground Loop Elimination
- Pulse Transformer Replacement
- A/D, D/A Conversion
- Switching Power Supplies



-211 (DIP)



-221 (DIP)



-241 (DIP)

**Absolute Maximum Ratings**

PARAMETER		SYMBOL	RATING	UNIT
Input	Forward Current	$I_F$	10	mA
	Peak Forward Current*	$I_{FM}$	25	mA
	Reverse Voltage	$V_R$	6	V
Output	Supply Voltage	$V_{CEO}$	0 to 7	V
	Output Voltage	$V_{ECO}$	-5 to 10	V
	Current	$I_C$	25	mA
	Total Power Dissipation	$P_C$	200	mW
Isolation Voltage**		$V_{iso}$	5000	$V_{rms}$
Operating Temperature		$T_{opr}$	-55 to +125	°C
Storage Temperature		$T_{stg}$	-55 to +150	°C
Soldering Temperature***		$T_{sol}$	260	°C

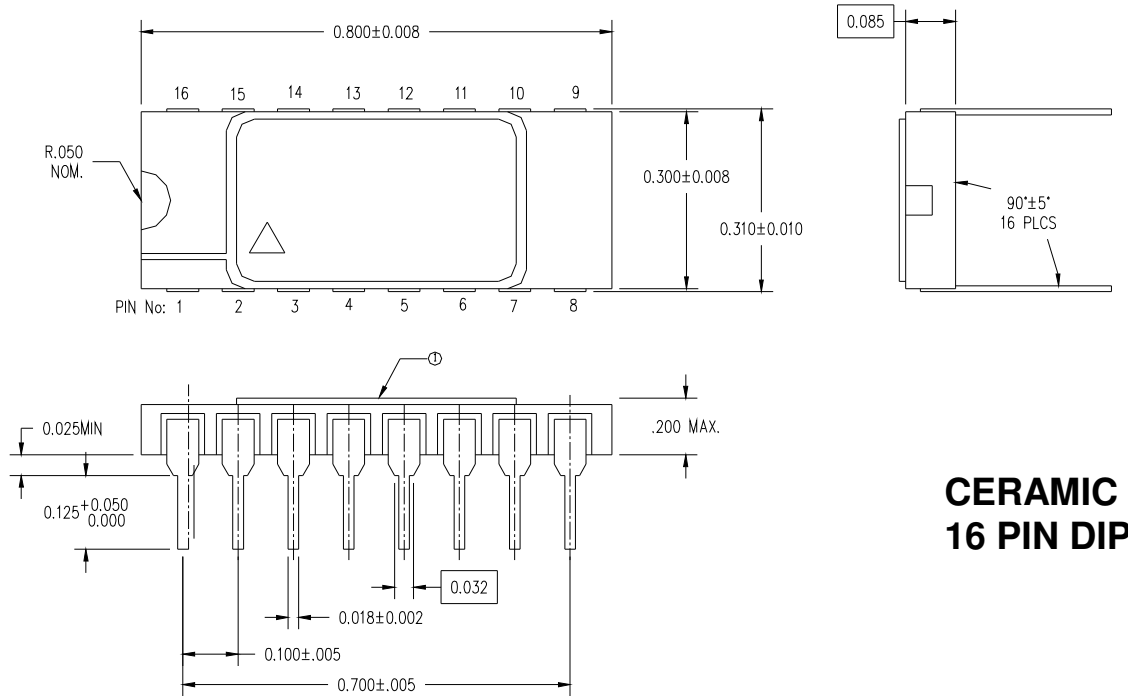
\* &lt; 1 ms duration

\*\* AC for 1 min, 40 to 60% RH

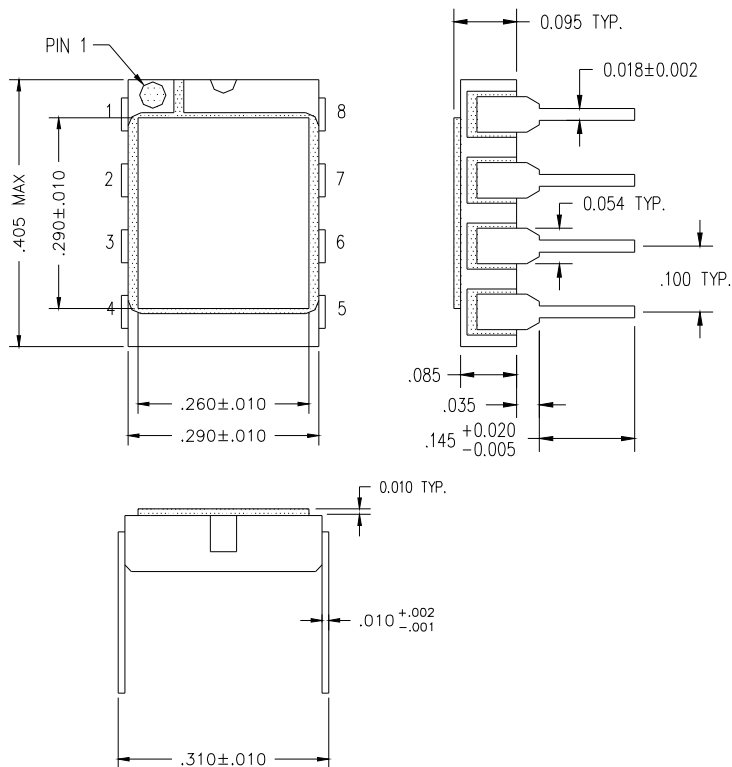
\*\*\* For 10 seconds

**Electro-Optical Characteristics (-55° to 125°C)**

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	$V_F$	$I_F = 1 \text{ mA}$	-	1.1	1.4	V
Reverse Current	$I_R$	$V_R = 4 \text{ V}$	-	-	12	$\mu\text{A}$
Reverse Breakdown Voltage	$BV_R$	$I_R = 15 \mu\text{A}$	6	-	-	V
Logic Low Output Voltage	$V_{OL}$	$I_{OL} = 5 \text{ mA}$	-	-	0.5	V
Logic High Output Voltage	$V_{OH}$	$I_{OH} = -2.5 \text{ mA}$	2.4	-	-	V
Isolation Resistance	$R_{ISO}$	500 $V_{DC}$ , 40–60% RH	$4 \times 10^{10}$	$10^{11}$	-	$\Omega$
Floating Capacitance	$C_F$	$f = 1 \text{ MHz}$	-	0.6	1.0	pF
Supply Current, low (per device)	$I_{SL}$	$I_F = 0 \text{ mA}$ , $V_{CC} = 20 \text{ V}$	-	-	23	mA
Supply Current, high (per device)	$I_{SH}$	$I_F = 5 \text{ mA}$ , $V_{CC} = 20 \text{ V}$	-	-	21	mA
Propagation Delay, low to high	$t_{LH}$	-	-	-	60	ns
Propagation Delay, high to low	$t_{HL}$	-	-	-	60	ns
Rise Time	$t_r$	-	-	20	-	ns
Fall Time	$t_f$	-	-	10	-	ns



**CERAMIC  
16 PIN DIP**



**CERAMIC  
8 PIN DIP**

**TECHNICAL DATA**

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