

TECHNICAL DATA
DATA SHEET 4135, REV. A

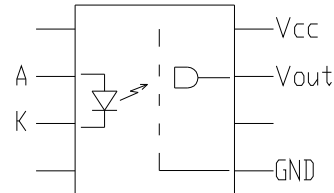
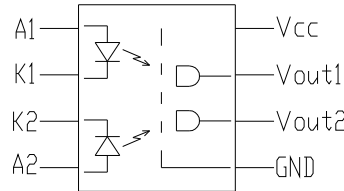
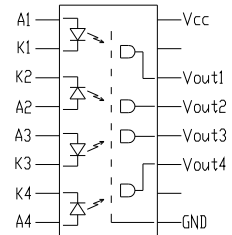
High Data Rate Optocoupler

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)
-212 (SOIC)-221 (DIP)
-222 (SOIC)-241 (DIP)
-242 (SOIC)

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

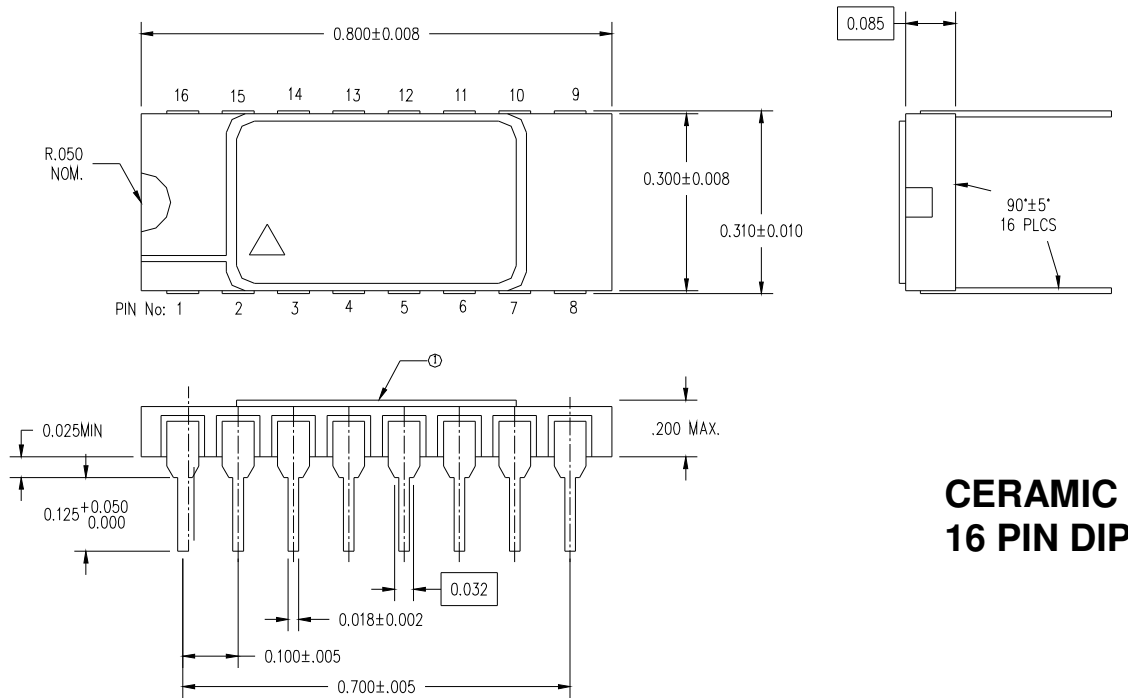
* < 1 ms duration

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

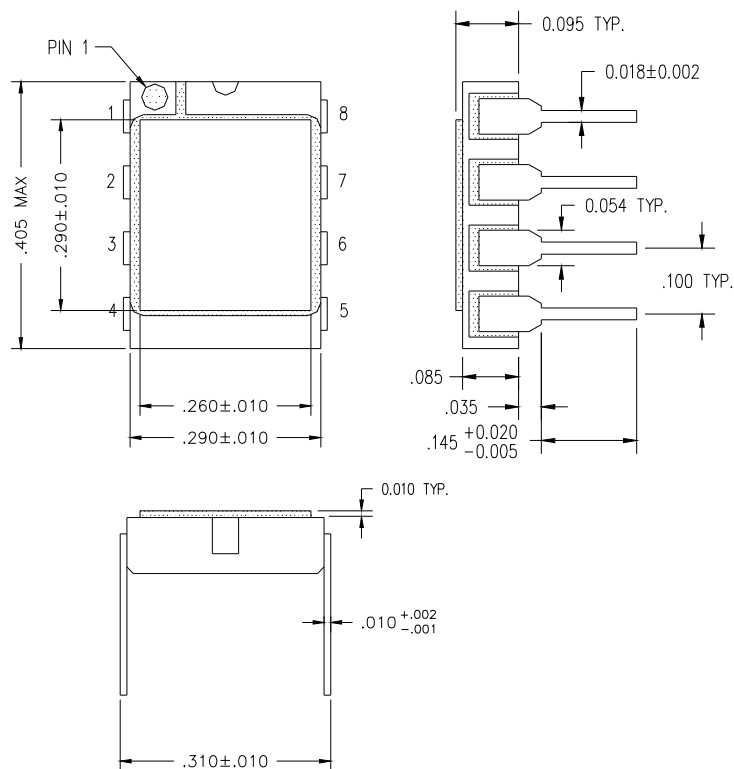
*** For 10 seconds

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

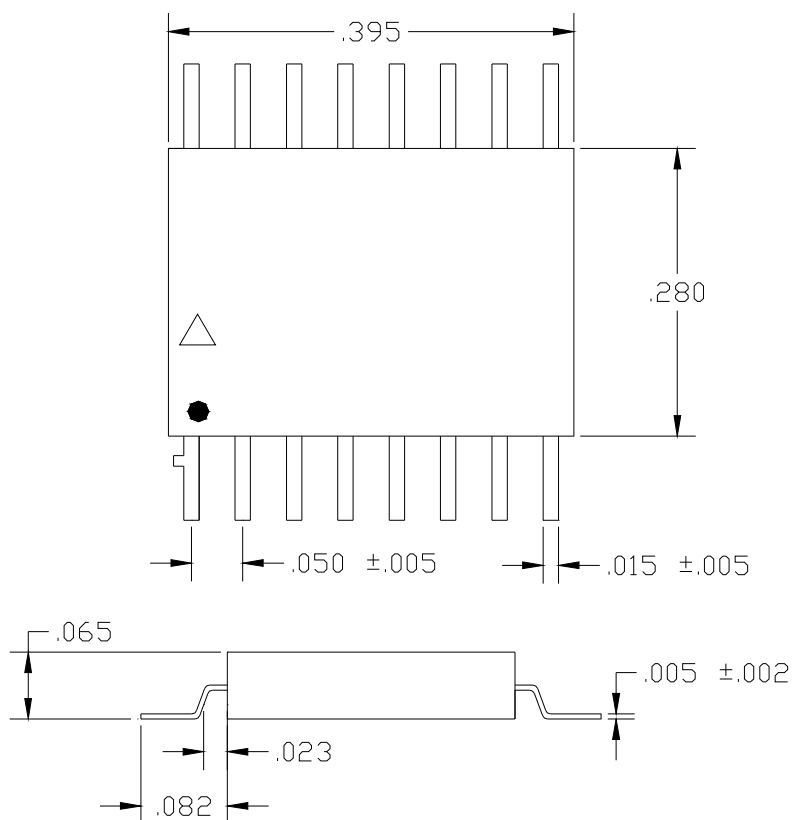
PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	V_F	$I_F = 1 \text{ mA}$	-	1.1	1.4	V
Reverse Current	I_R	$V_R = 4 \text{ V}$	-	-	12	μA
Reverse Breakdown Voltage	BV_R	$I_R = 15 \mu\text{A}$	6	-	-	V
Logic Low Output Voltage	V_{OL}	$I_{OL} = 5 \text{ mA}$	-	-	0.5	V
Logic High Output Voltage	V_{OH}	$I_{OH} = -2.5 \text{ mA}$	2.4	-	-	V
Isolation Resistance	R_{ISO}	500 V_{DC} , 40–60% RH	4×10^{10}	10^{11}	-	Ω
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



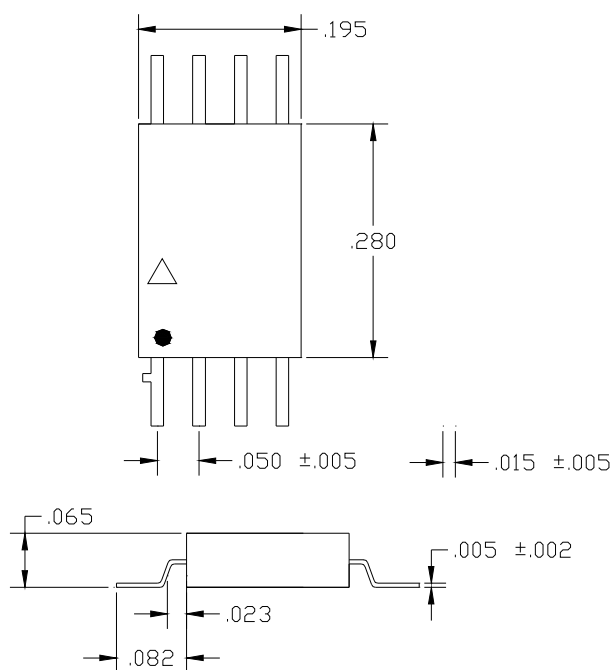
**CERAMIC
16 PIN DIP**



**CERAMIC
8 PIN DIP**



**CERAMIC
16 PIN SOIC**



**CERAMIC
8 PIN SOIC**