

66083

11/12/2009

MINIATURE 4 PIN LCC OPTOCOUPLER

ELECTRICAL CHARACTERISTICS INPUT LED $T_A = 25^\circ\text{C}$ Unless otherwise specified

PARAMETER	SYMBOL	MIN	MAX	UNITS	TEST CONDITIONS	NOTE
Input Diode Static Reverse Current	I_R		100	μA	$V_R = 2\text{ V}$	
Input Diode Static Forward Voltage	V_F	1.0	1.7	V	$I_F = 10\text{ mA}$	
		0.8	1.5			
		0.7	1.3			

OUTPUT TRANSISTOR $T_A = 25^\circ\text{C}$ Unless otherwise specified

PARAMETER	SYMBOL	MIN	MAX	UNITS	TEST CONDITIONS	NOTE
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	40		V	$I_C = 1\text{ mA}, I_B = 0, I_F = 0$	
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	7		V	$I_C = 0, I_E = 100\ \mu\text{A}, I_F = 0$	

COUPLED CHARACTERISTICS $T_A = 25^\circ\text{C}$ Unless otherwise specified

PARAMETER	SYMBOL	MIN	MAX	UNITS	TEST CONDITIONS	NOTE
On State Collector Current	$I_{C(ON)1}$	0.15		mA	$V_{CE} = 5\text{ V}, I_F = 2\text{ mA}$	
		0.2				
		0.4				
On State Collector Current	$I_{C(ON)2}$	2.5		mA	$V_{CE} = 5\text{ V}, I_F = 10\text{ mA}$	
		6.0				
		10.0				
On State Collector Current	$I_{C(ON)}$	1.0		mA	$V_{CE} = 5\text{ V}, I_F = 10\text{ mA}$	
-55°C		2.5				
		4.0				
On State Collector Current	$I_{C(ON)}$	1.0		mA	$V_{CE} = 5\text{ V}, I_F = 10\text{ mA}$	
+100°C		2.5				
		4.0				
Off State Collector Current	$I_{C(OFF)}$		100	nA	$V_{CE} = 20\text{ V}, I_B = 0, I_F = 0\text{ mA}$	
Off State Collector Current	$I_{C(OFF)}$		100	μA	$V_{CE} = 20\text{ V}, I_B = 0, I_F = 0\text{ mA}$	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$		0.3	V	$I_C = 2.5\text{ mA}, I_B = 0, I_F = 20\text{ mA}$	
			0.3		$I_C = 5\text{ mA}, I_B = 0, I_F = 20\text{ mA}$	
			0.3		$I_C = 10\text{ mA}, I_B = 0, I_F = 20\text{ mA}$	
Input to Output Resistance	R_{I-O}	10^{11}			$V_{IN-OUT} = 1\text{ kV}$	1
Input to Output Capacitance	C_{I-O}		5	pF	$F = 1\text{ MHz}, V_{IN-OUT} = 1\text{ kV}$	1
Rise Time	t_r		15	μs	$V_{CC} = 10\text{ V}, I_F = 10\text{ mA}, R_L = 100\ \Omega$	
or			20			
Fall Time			20			

NOTES:

- These parameters are measured between all phototransistor leads shorted together and with both input diode leads shorted together.

RECOMMENDED OPERATING CONDITIONS:

PARAMETER	SYMBOL	MIN	MAX	UNITS
Input Current, Low Level	I_{FL}	0	100	μA
Input Current, High Level	I_{FH}	2	10	mA
Supply Voltage	V_{CE}	5	10	V

SELECTION GUIDE

PART NUMBER	PART DESCRIPTION
66083-001	Commercial, 4N22 Equivalent
66083-002	Commercial, 4N23 Equivalent
66083-003	Commercial, 4N24 Equivalent
66083-101	TX Screened, 4N22 Equivalent
66083-102	TX Screened, 4N23 Equivalent
66083-103	TX Screened, 4N24 Equivalent
66083-201	TXV Screened, 4N22 Equivalent
66083-202	TXV Screened, 4N23 Equivalent
66083-203	TXV Screened, 4N24 Equivalent