

4 Pin DIL & SMD Optocouplers

Transistor Output															
Part Number	Features	Current Transfer Ratio $I_F = 5\text{mA}$ $V_{CE} = 5\text{V}$ Min (%)	Isolation Voltage Min (KV)	Continuous Forward Current Max (mA)	V_{BR} $I_R = 10\mu\text{A}$ Min (V)	BV_{CEO} $I_C = 0.5\text{mA}$ Min (V)	$I_{CEO(Dark)}$ $V_{CE} = 20\text{V}$ Max (nA)	$V_{CE(SAT)}$ $I_F = 8\text{mA}$ $I_C = 2.4\text{mA}$ Max (V)							
ISP321-1	Single channel Optocoupler with a Phototransistor Output	50-600	7.5(pk) 5.3(rms)	50	6	80	100	0.4							
ISP521-1		50-600				55									
ISP621-1		50-600				35			0.2($I_F = 20\text{mA}$) ($I_C = 1\text{mA}$)						
ISP817		50-600				55			0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$)						
ISP624-1		100-1200 ¹				80			0.3($I_F = 10\text{mA}$) ($I_C = 2\text{mA}$)						
PS2501-1		80-600				70			0.4($I_F = 10\text{mA}$) ($I_C = 2.5\text{mA}$)						
SFH615A-1		40-80/13 ($I_F = 10\text{mA}/1\text{mA}$)								50 ($V_{CE} = 10\text{V}$)					
SFH615A-2		63-125/22 ($I_F = 10\text{mA}/1\text{mA}$)					100 ($V_{CE} = 10\text{V}$)								
SFH615A-3		100-200/34 ($I_F = 10\text{mA}/1\text{mA}$)					50 ($V_{CE} = 10\text{V}$)								
SFH615A-4		160-320/56 ($I_F = 10\text{mA}/1\text{mA}$)					100 ($V_{CE} = 10\text{V}$)								
SFH617A-1		40-80/13 ($I_F = 10\text{mA}/1\text{mA}$)					55	0.4($I_F = 1\text{mA}$) ($I_C = 0.32\text{mA}$)							
SFH617A-2		63-125/22 ($I_F = 10\text{mA}/1\text{mA}$)								50 ($V_{CE} = 10\text{V}$)					
SFH617A-3		100-200/34 ($I_F = 10\text{mA}/1\text{mA}$)								100 ($V_{CE} = 10\text{V}$)					
SFH617A-4		160-320/56 ($I_F = 10\text{mA}/1\text{mA}$)								100 ($V_{CE} = 10\text{V}$)	0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$)				
SFH618A-2		63-125 ¹										0.4($I_F = 1\text{mA}$) ($I_C = 1.25\text{mA}$)			
SFH618A-3		100-200 ¹											35		
SFH618A-4		160-320 ¹												0.4($I_F = 5\text{mA}$) ($I_C = 1\text{mA}$)	
SFH618A-5		250-500 ¹													100 ($V_{CE} = 10\text{V}$)
TIL191		20													
TIL191A		50													
TIL191B		100													
TLP321		50-600								80	0.4				
TLP521		50-600					55								
TLP621		50-600													
TLP624		100-1200 ¹				0.4($I_F = 1\text{mA}$) ($I_C = 0.5\text{mA}$)									

Note 1 Test Condition: $I_F = 1\text{mA}$ $V_{CE} = 0.5\text{V}$

AC Input								
Part Number	Features	Current Transfer Ratio $I_F = \pm 10\text{mA}$ $V_{CE} = 5\text{V}$ Min (%)	Isolation Voltage Min (KV)	Continuous Forward Current Max (mA)	V_F $I_F = \pm 20\text{mA}$ Max (V)	BV_{CEO} $I_C = 1\text{mA}$ Min (V)	$I_{CEO(Dark)}$ $V_{CE} = 20\text{V}$ Max (nA)	$V_{CE(SAT)}$ Max (V)
ISP620-1	Single channel Optocoupler with two infrared LED's wired in inverse parallel allowing operation with AC input voltage	40-125 ¹	7.5(pk) 5.3(rms)	50mA	1.4	55 ($I_C = 0.5\text{mA}$)	100 ($V_{CE} = 24\text{V}$)	0.4($I_F = \pm 8\text{mA}$) ($I_C = 2.4\text{mA}$)
ISP626-1		100 ² 50 ³						0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$)
ISP814		20-300 ⁴						0.2($I_F = \pm 20\text{mA}$) ($I_C = 1\text{mA}$)
ISP814-1		80 ⁵				100	0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.8\text{mA}$)	
ISP814-2		140/80 ⁵					0.4($I_F = \pm 0.5\text{mA}$) ($I_C = 0.2\text{mA}$)	
ISP814-3		20/40/80 ⁵					0.4($I_F = \pm 0.25\text{mA}$) ($I_C = 0.05\text{mA}$)	
PS2505-1		80-600				80	100 ($V_{CE} = 40\text{V}$)	0.3($I_F = \pm 10\text{mA}$) ($I_C = 2\text{mA}$)
SFH620-1		40-125				70	50	0.4($I_F = \pm 10\text{mA}$) ($I_C = 2.5\text{mA}$)
SFH620-2		63-200					100	
SFH620-3		100-320					50	
SFH620A-1		40-125					100	
SFH620A-2		63-200						
SFH620A-3		100-320						
SFH628-2		63-200 ²				55	200 ($V_{CE} = 10\text{V}$)	0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.5\text{mA}$)
SFH628-3		100-320 ²						0.4($I_F = \pm 1\text{mA}$) ($I_C = 0.8\text{mA}$)
SFH628-4		160-500 ²						0.4($I_F = \pm 1\text{mA}$) ($I_C = 1.25\text{mA}$)

4 Pin DIL & SMD Optocouplers

AC Input

Part Number	Features	Current Transfer Ratio $I_F = \pm 10\text{mA}$ $V_{CE} = 5\text{V}$ Min (%)	Isolation Voltage Min (KV)	Continuous Forward Current Max (mA)	V_F $I_F = \pm 20\text{mA}$ Max (V)	BV_{CEO} $I_C = 1\text{mA}$ Min (V)	$I_{CEO(\text{Dark})}$ $V_{CE} = 20\text{V}$ Max (nA)	$V_{CE(\text{SAT})}$ Max (V)
SFH628A-2	Single channel Optocoupler with two infrared LED's wired in reverse parallel allowing operation with AC input voltage	63-200 ²	7.5(pk) 5.3(rms)	± 50	1.4	55	200 ($V_{CE}=10\text{V}$)	0.4($I_F=\pm 1\text{mA}$) ($I_C=0.5\text{mA}$)
SFH628A-3		100-320 ²						0.4($I_F=\pm 1\text{mA}$) ($I_C=0.8\text{mA}$)
SFH628A-4		160-500 ²						0.4($I_F=\pm 1\text{mA}$) ($I_C=1.25\text{mA}$)
TIL194		20				100 ($V_{CE}=24\text{V}$)	55	0.4($I_F=\pm 5\text{mA}$) ($I_C=1\text{mA}$)
TIL194A		50						0.4($I_F=\pm 8\text{mA}$) ($I_C=2.4\text{mA}$)
TIL194B		100						0.4($I_F=\pm 1\text{mA}$) ($I_C=0.5\text{mA}$)
TLP620-1		40-125 ¹						
TLP626-1		100 ² 50 ³						

Note 1: Test Condition $I_F = \pm 5\text{mA}$

Note 2: Test Condition $I_F = \pm 1\text{mA}$, $V_{CE} = 0.5\text{V}$

Note 3: Test Condition $I_F = \pm 0.5\text{mA}$, $V_{CE} = 1.5\text{V}$

Note 4: Test Condition $I_F = \pm 1\text{mA}$

Note 5: Test Condition $I_F = \pm 0.25 / \pm 0.5 / \pm 1\text{mA}$, $V_{CE} = 5\text{V}$

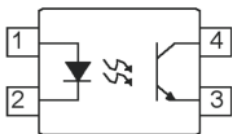
Darlington Output

Part Number	Features	Current Transfer Ratio $I_F = \pm 1\text{mA}$ $V_{CE} = 1\text{V}$ Min (%)	Isolation Voltage Min (KV)	Continuous Forward Current Max (mA)	V_F $I_F = 20\text{mA}$ Max (V)	V_{BR} $I_R = 10\mu\text{A}$ Min (V)	BV_{CEO} $I_C = 1\text{mA}$ Min (V)	$I_{CEO(\text{Dark})}$ $V_{CE} = 10\text{V}$ Max (nA)	$V_{CE(\text{SAT})}$ Max (V)
IS627	Single channel Optocoupler with a Photo-Darlington Transistor	1000-15000 ($V_{CE}=2\text{V}$)	7.5(pk) 5.3(rms)	50	1.4	6	300 ² ($I_C=0.1\text{mA}$)	200 ($V_{CE}=200\text{V}$)	1.2($I_F=10\text{mA}$) ($I_C = 100\text{mA}$)
ISP815		600-7500 ($V_{CE}=2\text{V}$)						35 ($I_C=0.1\text{mA}$)	1($I_F=20\text{mA}$, $I_C=5\text{mA}$)
ISP815-1		/800 ¹						70	1($I_F=1\text{mA}$) ($I_C=8\text{mA}$)
ISP815-2		/400/800 ¹							1($I_F=0.5\text{mA}$) ($I_C=2\text{mA}$)
ISP815-3		200/400/800 ¹							1($I_F=0.25\text{mA}$) ($I_C=0.5\text{mA}$)
PS2502-1		200-2000						80	1($I_F=1\text{mA}$) ($I_C=2\text{mA}$)
TIL197		500-7500						35	1($I_F = \text{mA}$) ($I_C=10\text{mA}$)
TIL197A		1000-7500							
TIL197B		1500-7500							

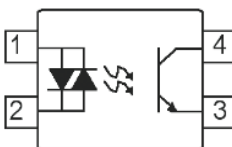
Note 1: Test Condition $I_F = 0.25 / 0.5 / 1\text{mA}$, $V_{CE}=1\text{V}$

Note 2: Device has a reverse biased diode connected between pins 3 and 4 giving high breakdown stability

Transistor Output



AC Input



Darlington Output

