

S-180 Series

Slotted Optical Switches



Electrical Characteristics (T_A = 25°C unless otherwise stated)

Symbol	Parameter	min	max	units	Test Conditions
Input Diode					
V _F	Forward Voltage	-	1.60	V	I _F = 20mA
I _R	Reverse Current	-	10	μA	V _R = 3.0V
Output Phototransistor⁽¹⁾					
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	30	-	V	I _C = 1.0mA
V _{(BR)ECO}	Emitter-Collector Breakdown Voltage	5.0	-	V	I _E = 100μA
I _D	Dark Current	-	100	nA	V _{CE} = 10V, E _b = 0
Coupled⁽²⁾					
I _L	Light Current				
	Parameter A	0.5	-	mA	I _F = 20mA, V _{CE} = 5V
	Parameter B	1.0	-	mA	I _F = 10mA, V _{CE} = 5V
	Parameter C	2.0	-	mA	I _F = 20mA, V _{CE} = 0.4V
	Parameter D	4.0	-	mA	I _F = 20mA, V _{CE} = 5V
V _{CE(sat)}	Collector-Emitter Saturation Voltage				
	Parameter A	-	0.4	V	I _F = 20mA, I _C = 0.40mA
	Parameter B	-	0.4	V	I _F = 10mA, I _C = 0.80mA
	Parameter C	-	0.4	V	I _F = 20mA, I _C = 2.00mA
	Parameter D	-	0.4	V	I _F = 20mA, I _C = 3.00mA

Notes:

- Radiation outside the sensitivity range of the device may be present during these measurements. Sufficient protection has been provided when the parameter being measured cannot be altered by further irradiation shielding.
- Other ranges of light current can be specified; call OptoSwitch for applications assistance.
- All wires are seven (7) strand, 28AWG, with UL 1429 insulation; length is 18" (457mm) minimum

Part Number Guide

