



SLOTTED OPTICAL SWITCH

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)	
Storage Temperature	-40°C to + 85°C
Operating Temperature	-40°C to + 85°C
Soldering:	
Lead Temperature (Iron)	240°C for 5 sec. ^(2,3,4)
Lead Temperature (Flow)	260°C for 10 sec. ^(2,3)
INPUT DIODE	
Continuous Forward Current	50 mA
Reverse Voltage	5.0 Volts
Power Dissipation	100 mW ⁽¹⁾
OUTPUT TRANSISTOR	
Collector-Emitter Voltage	30.0 Volts
Emitter-Collector Voltage	5.0 Volts
Power Dissipation	100 mW ⁽¹⁾

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)						
PARAMETER	SYMBOL	MIN.	MAX.	UNITS	TEST CONDITIONS	
INPUT DIODE						
Forward Voltage	V_F	—	1.70	V	$I_F = 20 \text{ mA}$	
Reverse Leakage Current	I_R	—	100	μA	$V_R = 2.0 \text{ V}$	
OUTPUT TRANSISTOR						
Emitter-Collector Breakdown	BV_{ECO}	5	—	V	$I_E = 100 \mu\text{A}, E_e = 0$	
Collector-Emitter Breakdown	BV_{CED}	30	—	V	$I_C = 1.0 \text{ mA}, E_e = 0$	
Collector-Emitter Leakage	I_{CEO}	—	100	nA	$V_{CE} = 10.0 \text{ V}, E_e = 0$	
COUPLED						
On-State Collector Current						
OPB866T51	$I_{C(ON)}$	1.0	—	mA	$I_F = 10 \text{ mA}, V_{CE} = 5 \text{ V}$	
OPB866T55	$I_{C(ON)}$	1.0	—	mA	$I_F = 10 \text{ mA}, V_{CE} = 5 \text{ V}$	
Saturation Voltage	$V_{CE(SAT)}$	—	0.40	V	$I_F = 10 \text{ mA}, I_C = 800 \mu\text{A}$	

NOTES	
1. Derate power dissipation linearly 1.67 mW/°C above 25°C.	
2. RMA flux is recommended.	
3. Methanol or Isopropyl alcohols are recommended as cleaning agents.	
4. Soldering iron tip 1/16" (1.6 mm) from housing.	