



## ■ Features

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## ■ Descriptions

## ■ Applications

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## ■ Device Selection Guide

Device No.	Chip Material	LENS COLOR



## Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating	Unit
I	Power Dissipation (base) 25°C case temperature	$P_d$	75	W
	Reverse Voltage	$V_R$	5	V
	Load Current	$I$	50	A
	Peak Load Current (*1) Pulse width $\leq 100 \mu s$ , Duty cycle = 1%	$I_P$	1	A
O	Collector Power Dissipation	$P_C$	75	W
	Collector Current	$I_C$	20	A
	Collector-Base Voltage	$V_{CB}$	30	V
	Emitter-Collector Voltage	$V_{EC}$	5	V
Operating Temperature		T	-25 +85	
Storage Temperature		$T_g$	-40 +85	
Lead Soldering Temperature (*2) (1/16 inch lead)		T	260	

(\*1)  $f = 100 \text{ kHz}$ ,  $T = 10 \text{ ms}$ . (\*2)  $t = 5 \text{ Sec}$ .

## Electro-Optical Characteristics (Ta=25°C)

Parameter		Symbol	Wavelength	Wavelength	Wavelength	Unit	Condition
I	Forward Voltage	V	---	1.2	1.6	V	$I = 20 \text{ mA}$
	Reverse Current	$I_R$	---	---	10	A	$V_R = 5 \text{ V}$
	Peak Wavelength	$\lambda_p$	---	940	---		$I = 20 \text{ mA}$
O	Collector Dark Current	$I_{C0}$	---	---	100	A	$V_{CB} = 10 \text{ V}$ , $I_E = 0 \text{ W/C}^2$
	Collector Saturation Voltage	$V_{CE(sat)}$	---	---	0.4	V	$I_C = 0.5 \text{ A}$ , $I_E = 10 \text{ W/C}^2$
	Collector Current	$I_C(O)$	1.0	13.8	---	A	$V_{CB} = 5 \text{ V}$ , $I = 20 \text{ mA}$
Thermal Characteristic	Rise Time		---	15	---	ns	$V_{CB} = 5 \text{ V}$
	Fall Time	$t_f$	---	15	---	ns	$I_C = 1 \text{ A}$ , $R = 1$



## ■ Typical Electrical/Optical/Characteristics Curves for PT

Fig.1 Spectral Sensitivity

Fig.2 Collector Current vs. Irradiance

