

# IPT0118

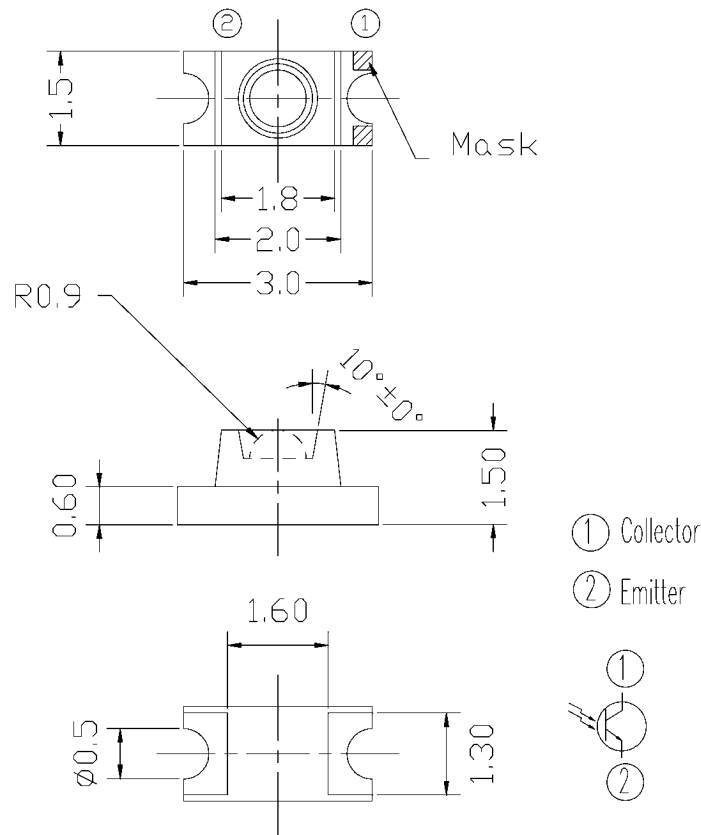
Page 1 of 2



This is a phototransistor in miniature SMD package. It is molded in a water clear plastic with a flat top view lens.



RoHS Compliant  
Aug 2004



PART NO.	Chip	Lens Color
	Material	
IPT0118	Silicon	Water Clear

\* Specifications subject to change without notice. Dimensions are in mm±0.1 unless stated otherwise.

IDEA, Inc., 1351 Titan Way, Brea, CA 92821 Ph:714-525-3302, 800-LED-IDEA; Fax: 714-525-3304 0507

**Absolute Maximum Ratings at  $T_a = 25^\circ\text{C}$** 

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	$V_{\text{CEO}}$	60	V
Emitter-Collector Voltage	$V_{\text{ECO}}$	5	V
Collector Current	$I_{\text{C}}$	20	mA
Operating Temperature	$T_{\text{opr}}$	-25 to +85	$^\circ\text{C}$
Storage Temperature	$T_{\text{stg}}$	-40 to +85	$^\circ\text{C}$
Soldering Temperature	$T_{\text{sol}}$	260	$^\circ\text{C}$
Power Dissipation at (or below) $25^\circ\text{C}$ Free Air Temperature	$P_{\text{d}}$	75	mW

**Electronic Optical Characteristics**

Parameter	Symbol	Min.	Typ.	Max	Units	Condition
Collector-Emitter Breakdown Voltage	$BV_{\text{CEO}}$	60	—	—	V	$I_{\text{C}}=100\mu\text{A}$ $E_{\text{e}}=0\text{ mW/cm}^2$
Emitter-Collector Breakdown Voltage	$BV_{\text{ECO}}$	5	—	—	V	$I_{\text{E}}=100\mu\text{A}$ $E_{\text{e}}=0\text{ mW/cm}^2$
Collector-Emitter Saturation Voltage	$V_{\text{CE(sat)}}$	—	—	0.4	V	$I_{\text{C}}=2\text{ mA}$ $E_{\text{e}}=1\text{ mW/cm}^2$
Rise Time	$t_{\text{r}}$	—	15	—	$\mu\text{s}$	$V_{\text{CE}}=5\text{ V}$ $I_{\text{C}}=1\text{ mA}$ $R_{\text{L}}=1000\ \Omega$
Fall Time	$t_{\text{f}}$	—	15	—	$\mu\text{s}$	
Collector Dark Current	$I_{\text{CEO}}$	—	—	100	nA	$V_{\text{CE}}=20\text{ V}$ $E_{\text{e}}=0\text{ mW/cm}^2$
On State Collector Current	$I_{\text{C(on)}}$	0.5	0.8	—	mA	$V_{\text{CE}}=5\text{ V}$ $E_{\text{e}}=1\text{ mW/cm}^2$
Peak Wavelength	$\lambda_{\text{p}}$	—	860	—	nm	—
Range of Spectral Bandwidth	$\lambda_{0.5}$	400	—	1200	nm	—

\* Specifications subject to change without notice. Dimensions are in  $\text{mm}\pm 0.1$  unless stated otherwise.