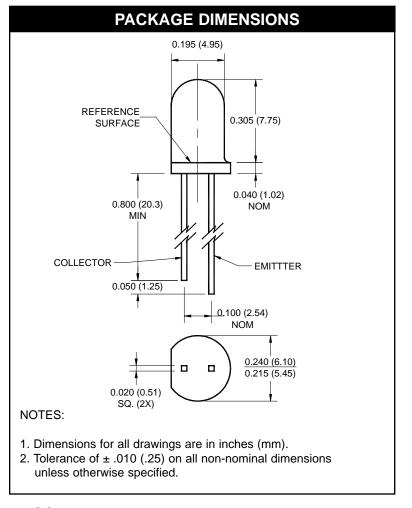
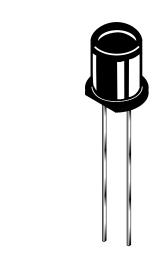
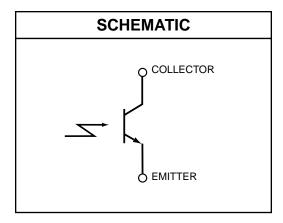


QSD128







DESCRIPTION

The QSD128 is a phototransistor encapsulated in an infrared transparent, black T-1 3/4 package.

FEATURES

• NPN Silicon Phototransistor

• Package Type: T-1 3/4

• Notched Emitter: QED12X/QED22X/QED23X

• Narrow Reception Angle: 24°C

• Daylight Filter

• Package Material and Color: Black Epoxy

High Sensitivity



QSD128

ABSOLUTE MAXIMUM RATINGS (T _A = 25°C unless otherwise specified)							
Parameter	Symbol	Rating	Unit				
Operating Temperature	T _{OPR}	-40 to +100	°C				
Storage Temperature	T _{STG}	-40 to +100	°C				
Soldering Temperature (Iron)(2,3,4)	T _{SOL-I}	240 for 5 sec	°C				
Soldering Temperature (Flow)(2,3)	T _{SOL-F}	260 for 10 sec	°C				
Collector-Emitter Voltage	V _{CE}	30	V				
Emitter-Collector Voltage	V _{EC}	5	V				
Power Dissipation ⁽¹⁾	P _D	100	mW				

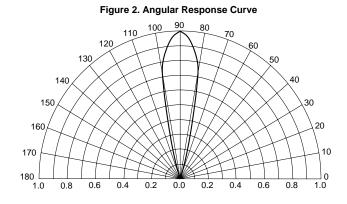
NOTE:

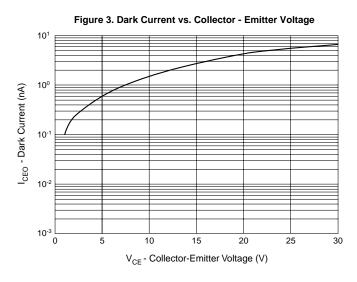
- 1. Derate power dissipation linearly 1.33 mW/°C above 25°C.
- 2. RMA flux is recommended.
- 3. Methanol or isopropyl alcohols are recommended as cleaning agents.
- 4. Soldering iron 1/16" (1.6mm) minimum from housing.
- 5. λ = 880 nm, AlGaAs.

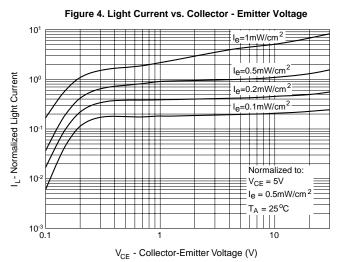
ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)								
PARAMETER	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNITS		
Peak Sensitivity Wavelength		λps	_	880	_	nm		
Reception Angle		θ		±12		Deg.		
Collector Emitter Dark Current	$V_{CE} = 10 \text{ V}, E_{e} = 0$	I _{CEO}	_	_	100	nA		
Collector Emitter Breakdown	$I_C = 1 \text{ mA}$	BV _{CEO}	30	_	_	V		
Emitter Collector Breakdown	I _E = 100 μA	BV _{ECO}	5	_	_	V		
On-State Collector Current ⁽⁵⁾	$E_e = 0.5 \text{ mW/cm}^2, V_{CE} = 5 \text{ V}$	I _{C (ON)}	1.60	_	_	mA		
Saturation Voltage(5)	$E_e = 0.5 \text{ mW/cm}^2$, $I_C = 0.5 \text{ mA}$	VCE (SAT)		_	0.4	V		
Rise Time	$Vcc = 5 \text{ V}, R_1 = 100 \Omega \text{ lc} = 0.2 \text{ mA}$	tr	_	7	_	- µs		
Fall Time	VCC = 0.2 IIIA	t _f	_	7	_			

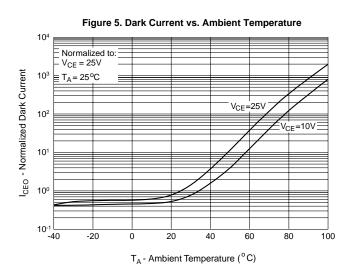


QSD128











QSD128

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