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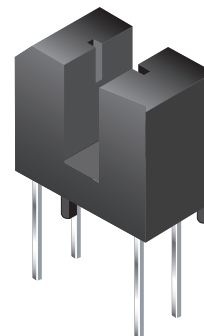
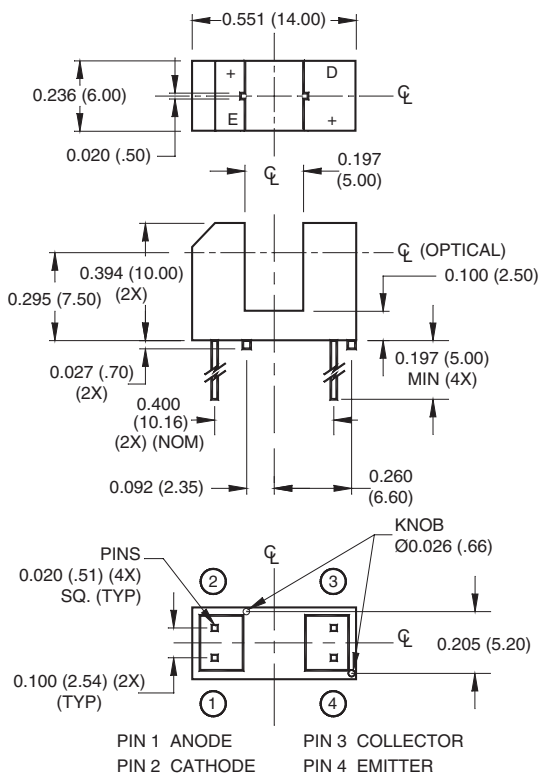
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sales@integrated-circuit.com

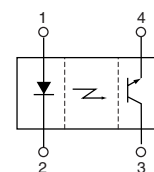
PHOTOTRANSISTOR OPTICAL INTERRUPTER SWITCH

QVE00832

PACKAGE DIMENSIONS



SCHEMATIC



FEATURES

- No contact switching
- 5mm wide slot
- 0.5 mm aperture width
- Opaque black plastic housing
- Locating knobs on housing base for accurate mounting
- Transistor Output

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" (1.6mm) from housing.

NOTES:

1. Dimensions for all drawings are in inches (millimeters).
2. Tolerance of ± .010 (.25) on all non-nominal dimensions unless otherwise specified.

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Rating	Units
Operating Temperature	TOPR	-55 to +100	°C
Storage Temperature	TSTG	-55 to +100	°C
Soldering Temperature (Iron)(2,3,4)	TSOL-I	240 for 5 sec	°C
Soldering Temperature (Flow)(2,3)	TSOL-F	260 for 10 sec	°C
EMITTER			
Continuous Forward Current	IF	60	mA
Reverse Voltage	VR	6	V
Power Dissipation(1)	PD	150	mW
SENSOR			
Collector-Emitter Voltage	VCEO	30	V
Emitter-Collector Voltage	VECO	4.5	V
Collector Current	IC	20	mA
Power Dissipation(1)	PD	150	mW

ELECTRICAL / OPTICAL CHARACTERISTICS (T _A = 25°C)						
PARAMETER	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNITS
EMITTER						
Forward Voltage	I _F = 20 mA	V _F	—	1.2	1.5	V
Reverse Current	V _R = 4 V	I _R	—	—	10	μA
Peak Emission Wavelength	I _F = 20 mA	λ _{PE}	—	940	—	nm
SENSOR						
Dark Current	V _{CE} = 10 V, I _F = 0 mA	I _D	—	—	200	nA
COUPLED						
Collector Current	I _F = 20 mA, V _{CE} = 10 V	I _{C(ON)}	0.5	—	14	mA
Collector Emitter Saturation Voltage	I _F = 20 mA, I _C = 0.1 mA	V _{CE(SAT)}	—	—	0.4	V
Rise Time	V _{CC} = 5 V, R _L = 100 Ω	t _r	—	4	—	μs
Fall Time	I _C = 5 mA	t _f	—	4	—	μs

TYPICAL PERFORMANCE CURVES

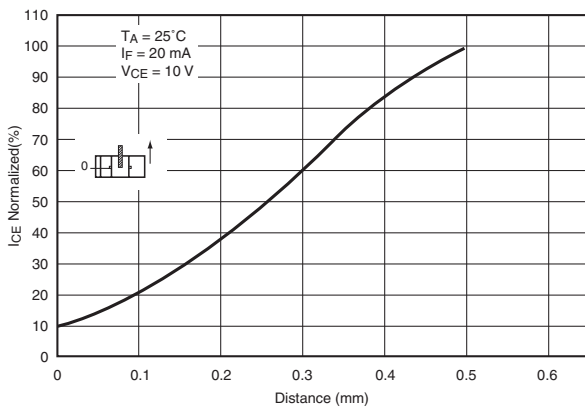


Fig. 1 Collector Current vs. Shield distance

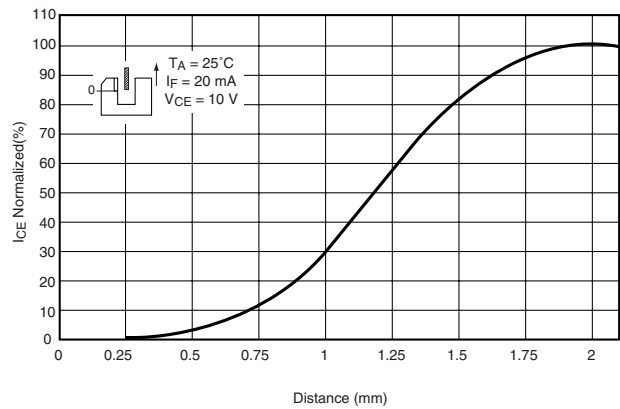


Fig. 2 Collector Current vs. Shield distance

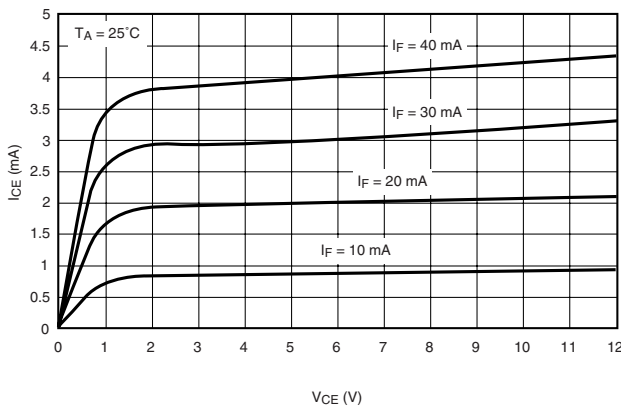


Fig. 3 Collector-Emitter Voltage vs. Collector Current

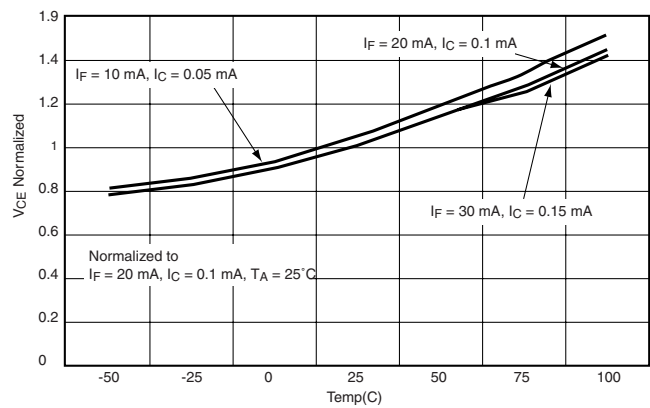


Fig. 4 Collector-Emitter Voltage vs. Temperature

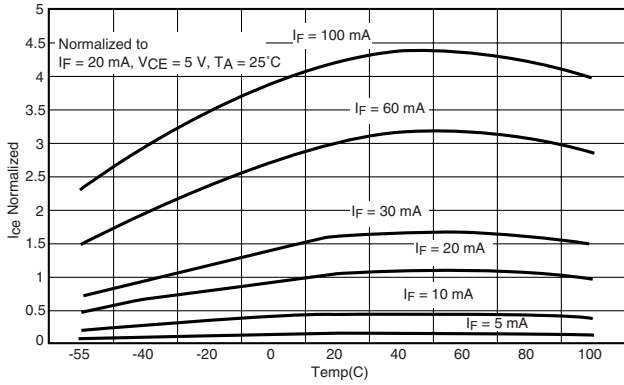


Fig. 5 Collector Current vs. Temperature

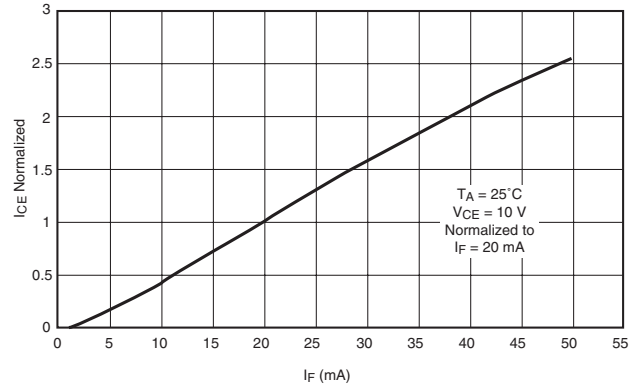


Fig. 6 Collector Current vs. Forward Current

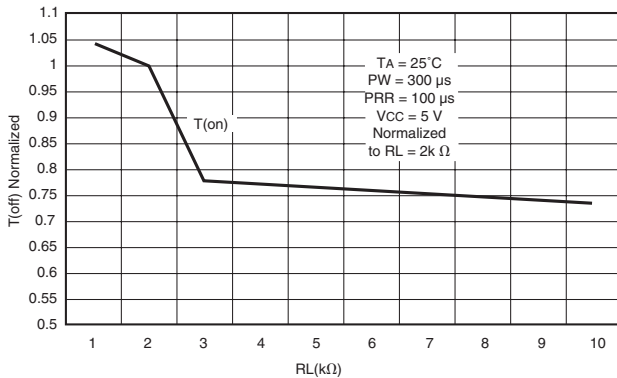


Fig. 7 Rise Time vs. Load Resistance

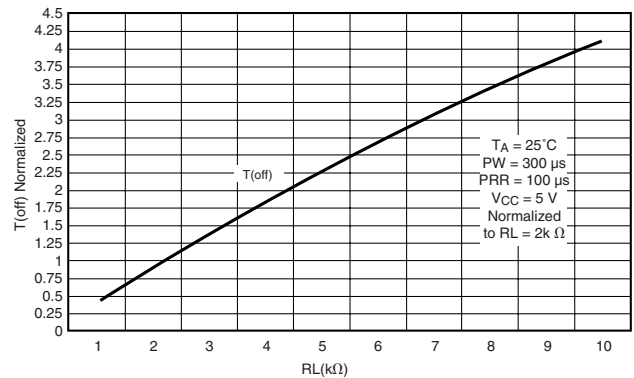


Fig. 8 Fall Time vs. Load Resistance

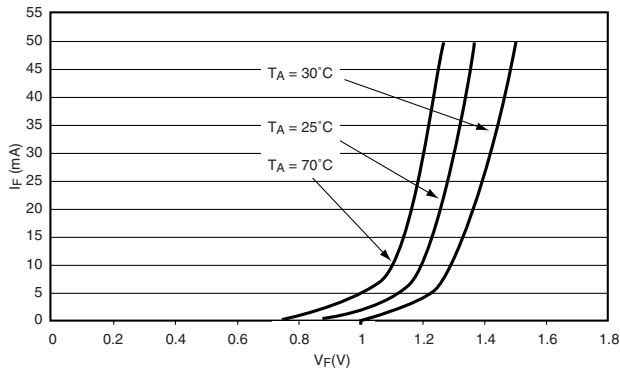


Fig. 9 Forward Voltage vs. Forward Current

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