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FUNCTIONAL BLOCK DIAGRAM

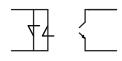


Figure 1. Schematic FOD814

ABSOLUTE MAXIMUM RATINGS $T_A = 25^{\circ}C$ unless otherwise specified. (continued)

		Val		
Symbol	Parameter	FOD814	FOD817	Unit
EMITTER				
١ _F	Continuous Forward Current	±50	50	mA
V _R	Reverse Voltage		6	V
PD	Power Dissipation	7	mW	
	Derate Above 100°C	1.	mW/°C	
DETECTOR				
V _{CEO}	Collector-Emitter Voltage	7	V	
V _{ECO}	Emitter-Collector Voltage	6		
۱ _C	Continuous Collector Current	5	mA	
P _C	Collector Power Dissipation	15	mW	
	Derate Above 90°C	2.	mW/°C	

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

ELECTRICAL CHARACTERISTICS T_A = 25°C unless otherwise specified.

ELECTRICAL CHARACTERISTICS $T_A = 25^{\circ}C$ unless otherwise specified. (continued)

AC TRANSFER CHARACTERISTICS

Symbol	Parameter	Device	Test Conditions	Min	Тур	Max	Unit
f _C	Cut–Off Frequency	FOD814		15	80	-	kHz
t _r	Response Time (Rise)	FOD814, FOD817	V _{CE} = 2 V, I_C = 2 mA,		4	18	μs
t _f	Response Time (Fall)	FOD814, FOD817	$R_L = 100 \Omega$ (Note 3)	-	3	18	

ISOLATION CHARACTERISTICS

Symbol	Parameter	Device	Test Conditions	Min	Тур	Max	Unit
V _{ISO}	Input–Output Isolation Voltage (Note 4)	FOD814, FOD817	$\begin{array}{l} f=60 \text{ Hz}, t=1 \text{ min}, \\ I_{I-O} \leq 2 \ \mu A \end{array}$	5000	-	-	VAC _{RMS}
R _{ISO}	Isolation Resistance	FOD814, FOD817	$V_{I-O} = 500 V_{DC}$	5x10 ¹⁰	1x10 ¹¹	-	Ω
C _{ISO}	Isolation Capacitance	FOD814, FOD817	$V_{I-O} = 0, f = 1 MHz$	-	0.6	1.0	pf

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

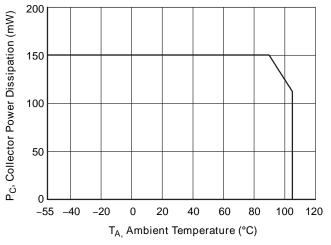
2. Current Transfer Ratio (CTR) = $I_C / I_F x 100\%$

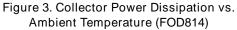
3. For test circuit setup and waveforms, refer to page 5.

4. For this test, Pins 1 and 2 are common, and Pins 3 and 4 are common.

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTICS CURVES

 $T_A = 25^{\circ}C$ unless otherwise specified.





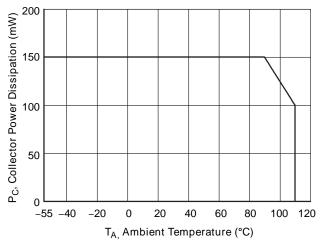
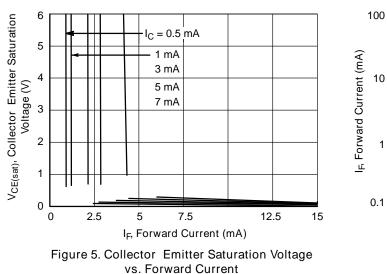
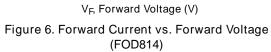


Figure 4. Collector Power Dissipation vs. Ambient Temperature (FOD817)

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTICS CURVES

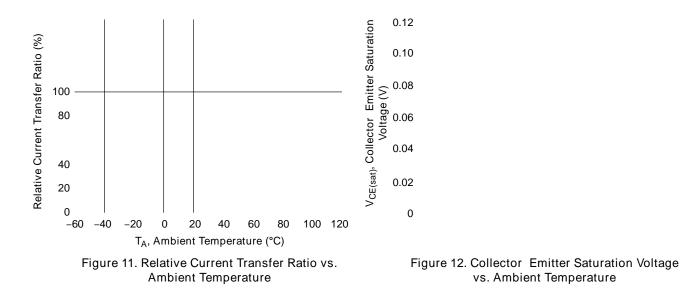
 $T_A = 25^{\circ}C$ unless otherwise specified. (continued)





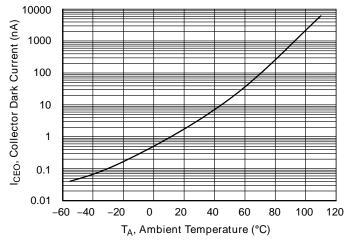
TYPICAL ELECTRICAL/OPTICAL CHARACTERISTICS CURVES

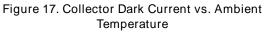
 $T_A = 25^{\circ}C$ unless otherwise specified. (continued)



TYPICAL ELECTRICAL/OPTICAL CHARACTERISTICS CURVES

 T_A = 25°C unless otherwise specified. (continued)





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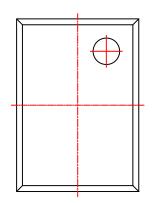
Shipping[†]

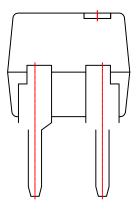
Tube (100 units per tube) Tube (100 units per tube) and Reel (1,000 units per reel) Tube (100 units per tube)

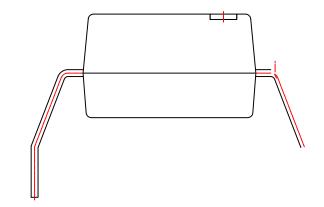
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DATE 31 JUL 2016

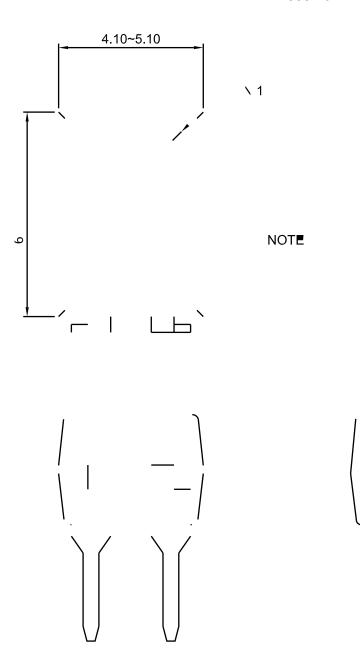






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