



ORIENT

Photo coupler

Product Data Sheet

: _____ -3 4-4 _____
: _____
: _____

一级代理商：

深圳市弗瑞鑫电子有限公司

地址：深圳市宝安区西乡大道302号金源商务大厦B座三楼

TEL：0755-29563634

FAX：0755-27447020

www.frxelec.com



1. Features

1. (): .20% = 1 , = 5 , =25
2. - .(=3,750)
3. = 80 ()
4. :-55 125
5. ,
- 6.

2. Instructions

-3 4-4

16-

2 3

3. Application Range

- (1).
- (2).
- (3).

4. Max Absolute rated Value (Normal Temperature=25)

			50
	(=10)		1
			6
			65
			125
			80
			7
			50
			150
			125
			200
*1			3750
			-55 +125
			-55 +150
*2			260

*1. 1 , . . = 40 60%

- (1)
- (2)
- (3)

*2. 10



5. Opto-electronic Characteristics(Normal Temperature=25)

Parameter	Symbol	Min	Typ.*	Max	Unit	Condition
Input		---	1.2	1.4		= 20
		---	60	---		=0, =1
		---	---	100		=20 , =0 .41
Output						



6. Rank table of current transfer ratio CTR

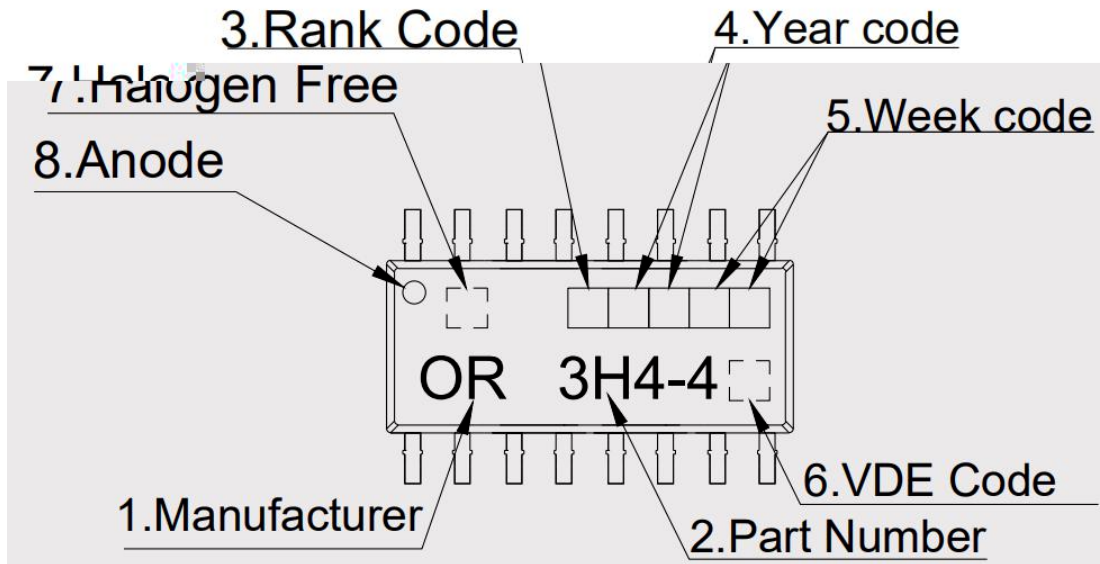
- Current Conversion Ratio = $I_C / I_F \times 100\%$

7. Order Information

Part Number

OR-3

8. Naming Rule



1. : .

2. : 3 4-4.

3. []

4. [][] '21' '2021' .

5. [][] 01 ,02 .

6. [] .

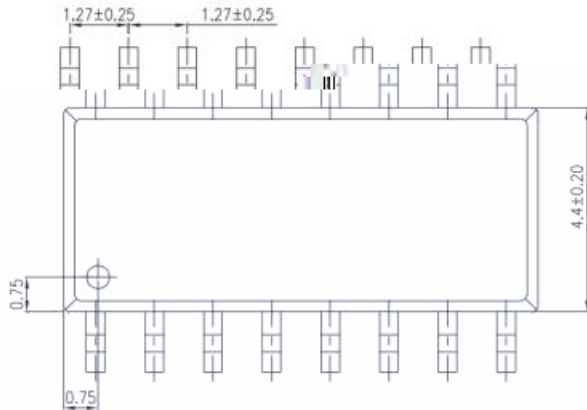
7. [] :

8. .

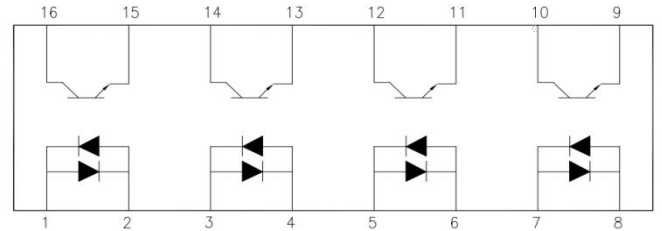
*

*

9. Outer Dimension



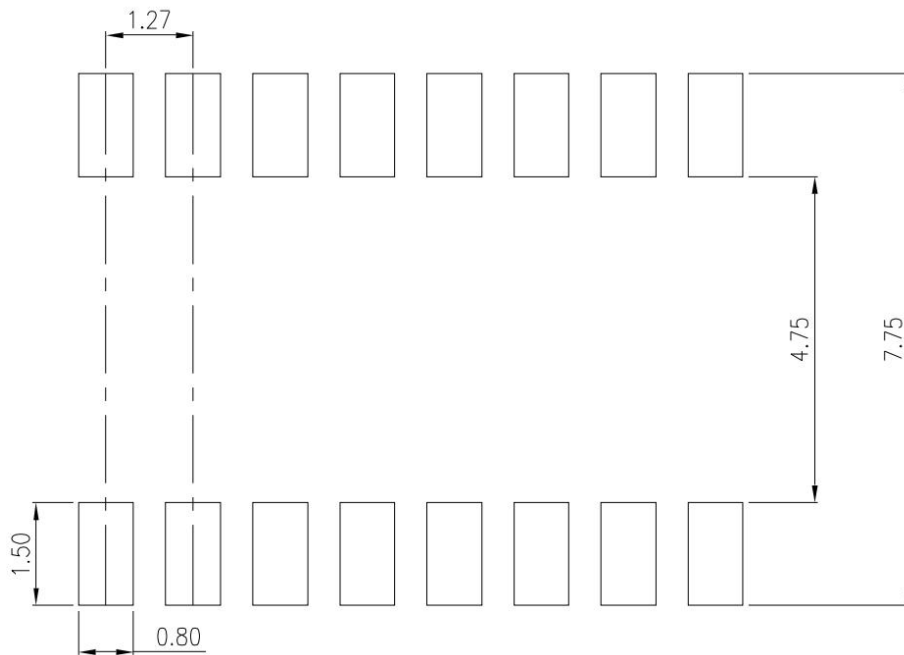
PIN NO. AND INTERNAL CONNECTION DIAGRAM



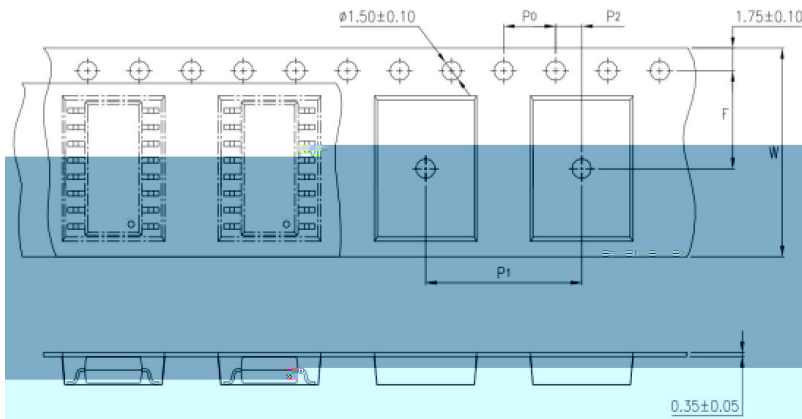
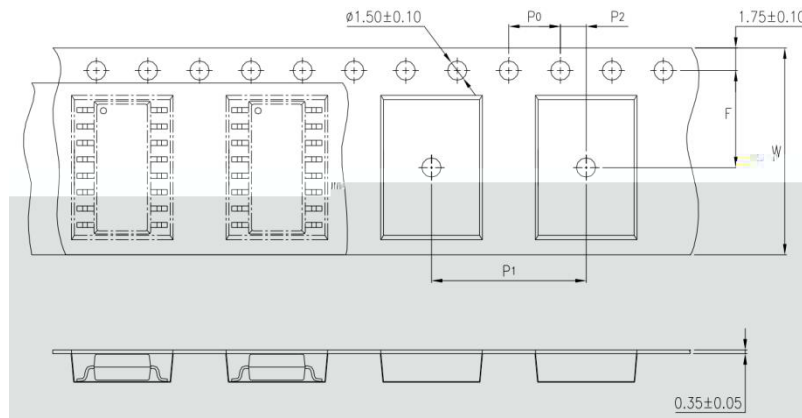
1,3,5,7. Anode,Cathode 9,11,13,15. Emitter
 2,4,6,8. Cathode,Anode 10,12,14,16. Collector



10. Recommended Foot Print Patterns (Mount Pad) (Unit:mm)



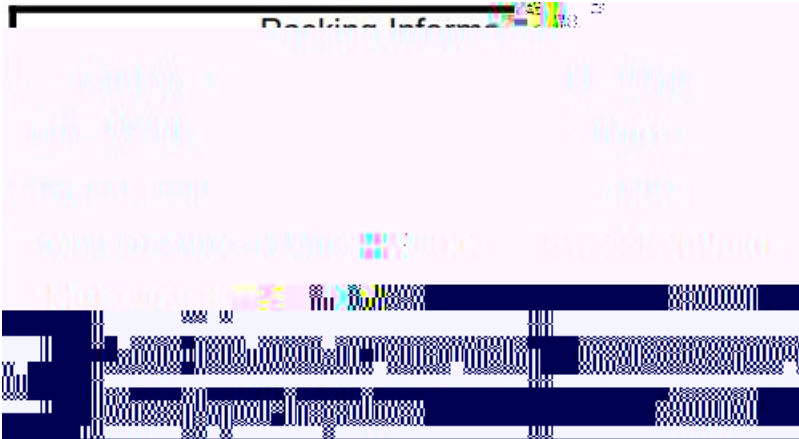
11. Taping Dimensions



type	Symbo l	Dimensions: mm (in.)
bandwid h	W	16 ± 0.3 (0.47)
pitch	P0	4 ± 0.1 (0.15)
pitch	F	7.5 ± 0.1 (0.217)
	P2	2 ± 0.1 (0.079)
interval	P1	12 ± 0.1 (0.315)

Encapsulation type	TA1/TA
Quantity (pieces)	2000

12. Package Dimension



1. MTL NO:Contents with "Order Information" in the specification.
2. LOT NO:The production cycle of the product.
3. BATCH:The CTR RANK of the product.
4. Quantity:Product packaging quantity.
5. Product Data: The data when product be made.



13. Reliability Test

Reliability Testing

NO.	ITEMS	QTY. (Pcs)	Condition	Process	Standard
1	RSH	260	5	10s/3 times 168 hrs	JESD22-A106
2	HTSL	125		500 hrs 1000 hrs 168 hrs	JESD22-A103
3	LTSL	-55		500 hrs 1000 hrs	JESD22-A119
4	TC		H:125 15min 5min L:-55 15min	300 cycle	JESD22-A104
5	TS		H:100 5min 15s L:-40 5min	300 cycle	JESD22-A106
				.	JESD22-

ib KCD 0

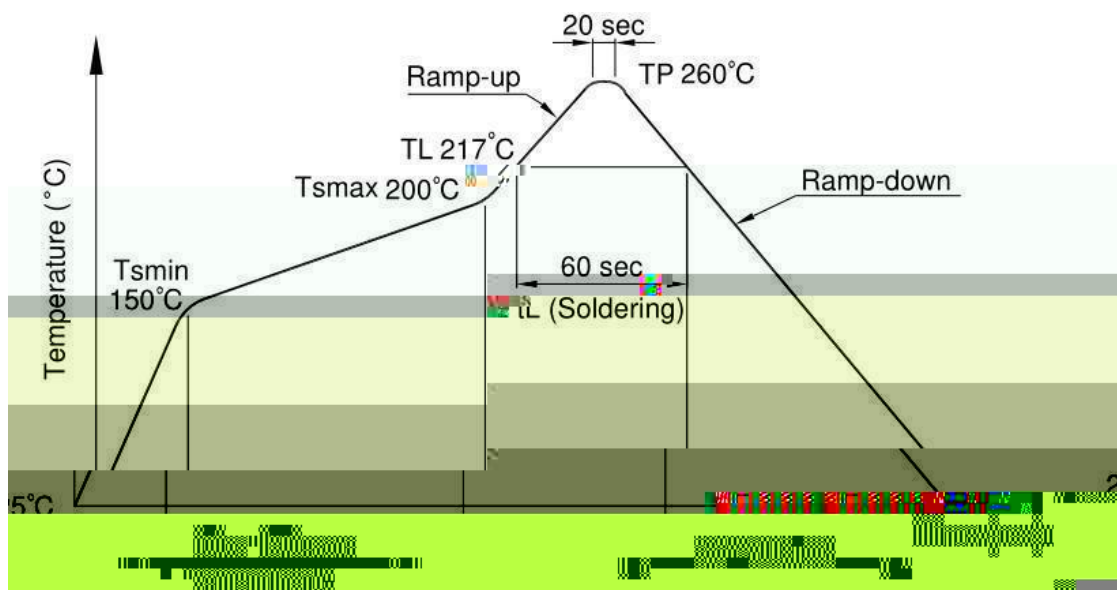
q8 pe

B

14. Temperature Profile Of Soldering

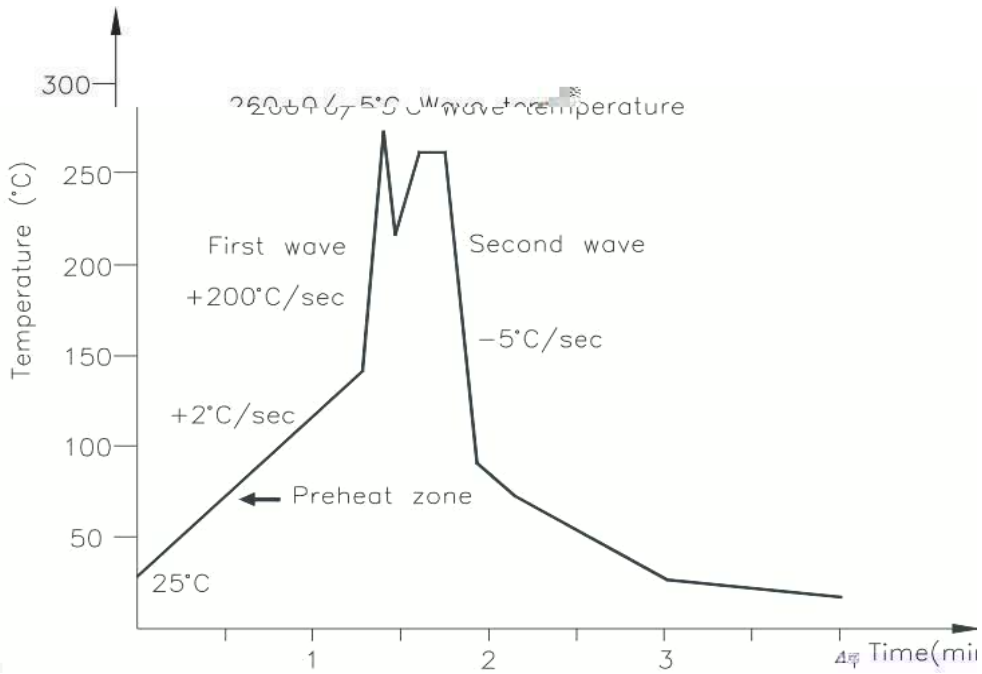
1 IR Reflow soldering (JEDEC-STD-020C compliant)

Profile item	Conditions
- ()	150
- ()	200
- () ()	90 30
- ()	217
- ()	60
	260
	20
-	3 /
-	3 6 /
	3



2 Wave soldering (JEDEC22A111 compliant)

	260+0/-5
	10
	25 140
	30 80



3 Hand soldering by soldering iron

Temperature	380+0/-5°C
Time	3 sec max

15. Characteristics Curve

Figure 1. Collector Power Dissipation vs. Ambient Temperature

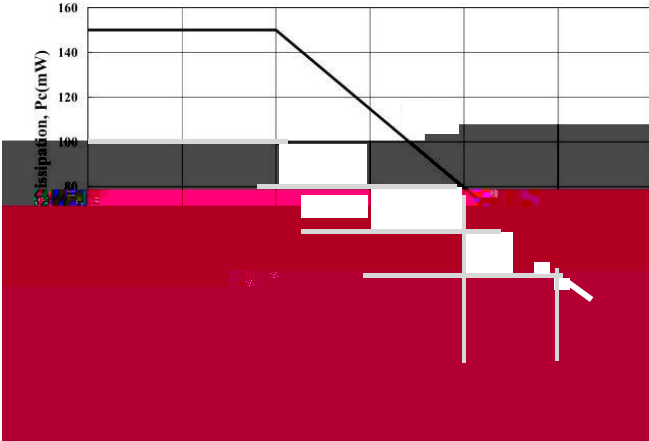


Figure 2. Forward Current vs. Ambient Temperature

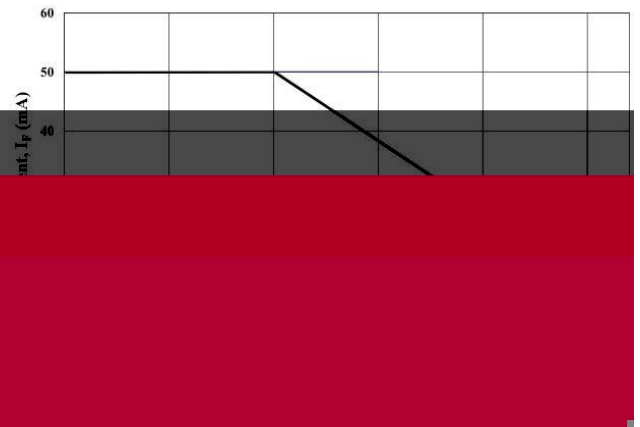


Figure 3. Forward Current vs. Forward Voltage



Figure 4. Forward Voltage Temperature Coefficient vs. Forward Current

Figure 5. Pulse Forward Current vs. Duty Cycle Ratio

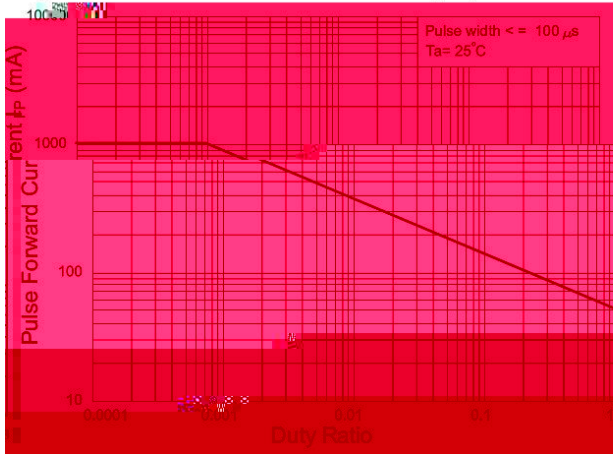


Figure 6. Pulse Forward Current vs. Pulse Forward Voltage

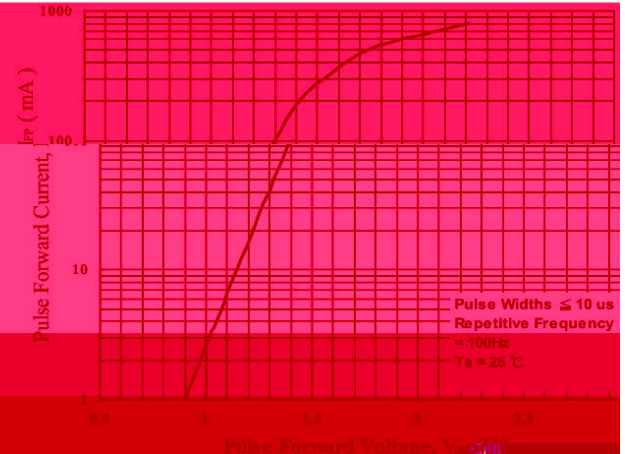


Figure 7. Collector-Emitter Saturation Voltage vs. Forward

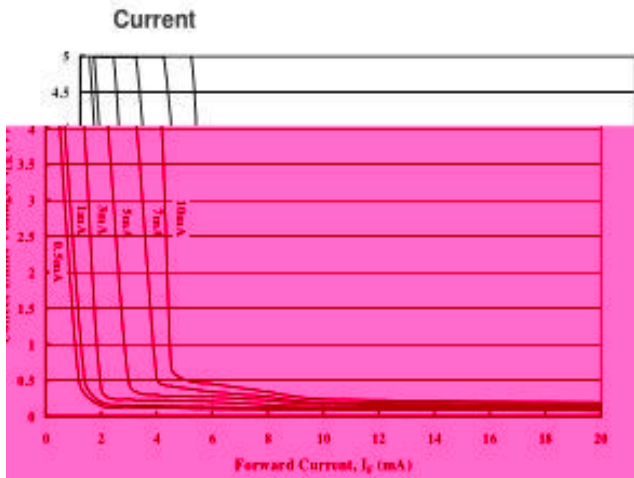


Figure 8. Collector Current vs. Collector-Emitter

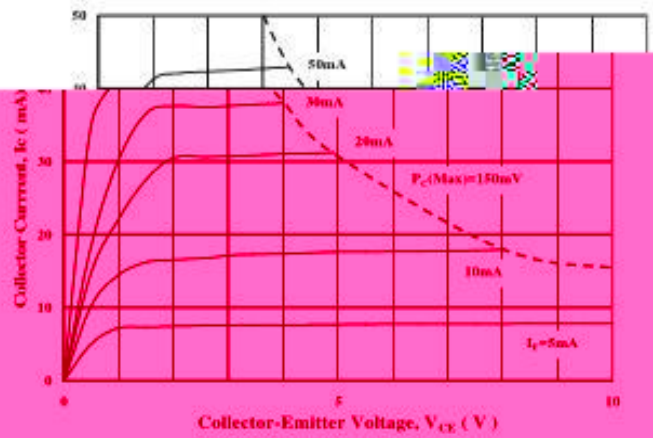


Figure 9. Collector Current vs. Small Collector-Emitter

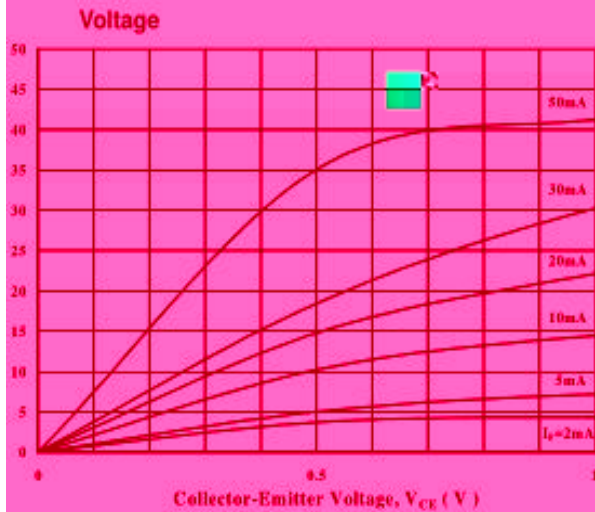


Figure 10. Normalized CTR vs. Forward

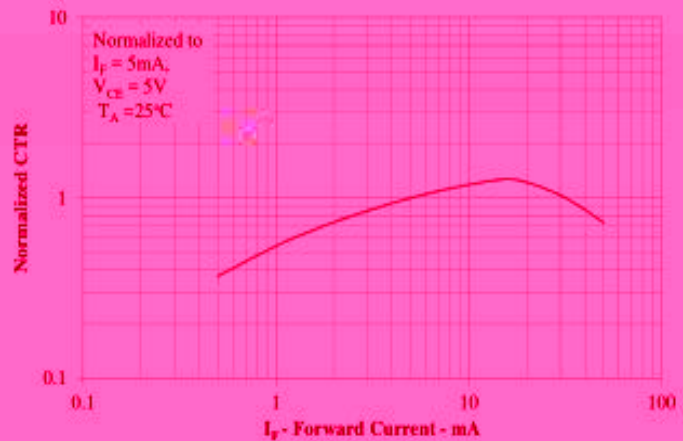


Figure 11. Collector Dark Current vs. Ambient Temperature

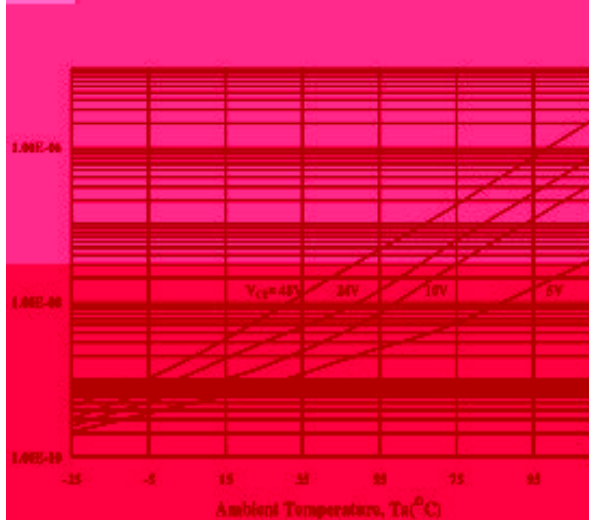


Figure 12. Current Transfer Ratio vs. Forward

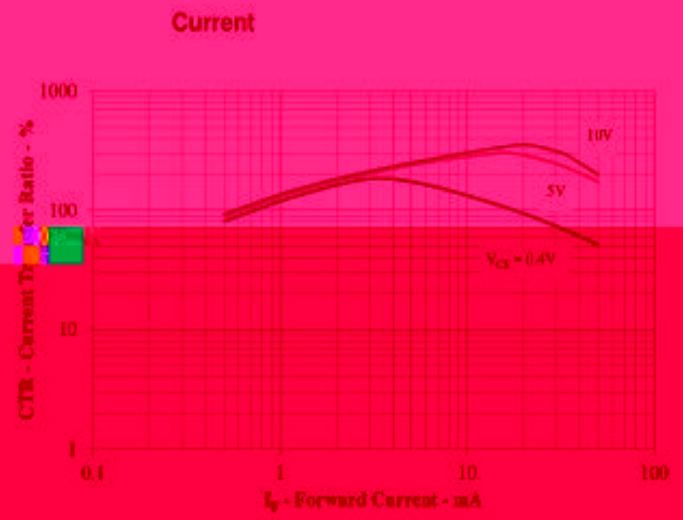


Figure 13. Normalized CTR vs. Ambient Temperature

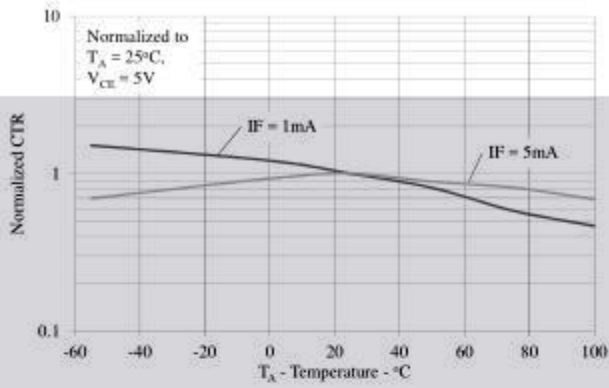


Figure 14. Collector-Emitter Saturation Voltage vs. Ambient Temperature

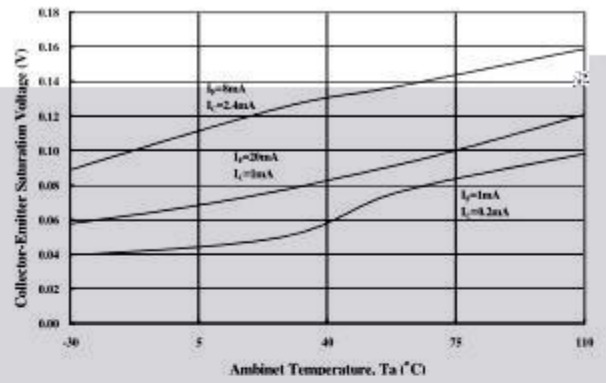


Figure 15. Collector Current vs. Ambient Temperature



Figure 16. Switching Time vs. Load Resistance

