

MTRS5250T

Features

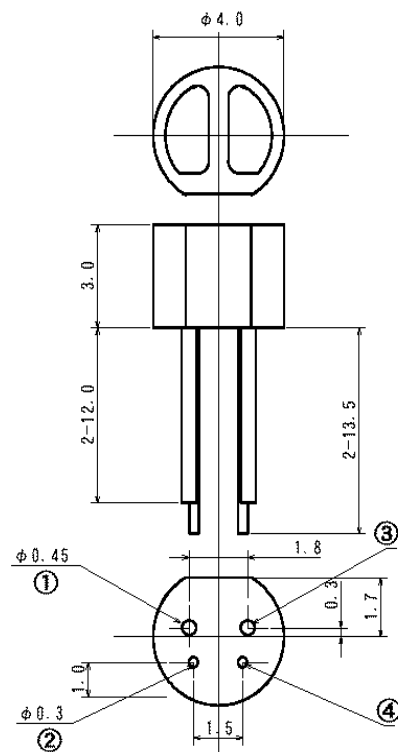
High Reliability
Compact Package

Applications

Card Reader
Bar Code Reader
Edge Sensing
Money/Bill Reader

Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Forward Current	I _F	20	—	mA
Pulsed Forward Current	I _{FP}	50.00	tw=10μs, T=10mS	A
Reverse Voltage	V _R	5	—	V
Power Dissipation	P _D	70.00	—	mW
Collector-Emitter Voltage	V _{CE}	50	—	V
Emitter-Collector Voltage	V _{EC}	5	—	V
Collector Current	I _C	50	—	mA
Operating Temperature	T _{opr}	-20 ~ +80	—	°C
Storage Temperature	T _{stg}	-30 ~ +100	—	°C
Soldering Temperature	T _{sol}	260	for 5 sec. max	°C



- ① LED Cathode ③ PTR Collector
② LED Anode ④ PTR Emitter

Opto-Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F =20mA	—	3.50	4.00	V
Reverse Current	I _R	V _R =5V	—	—	10	μA
Light Current	I _L	I _F =10mA, V _{ce} =10V, d=1mm*	—	200.00	—	μA
Dark Current	I _D	V _{ce} =10V	—	—	100	nA
Peak Sensitivity Wavelength	nm	I _F =20mA	—	520	—	nm
Spectral Line Half Width	Δλ	I _F =20mA	—	38	—	nm
Cross-Talk	I _x	I _F =10mA, V _{ce} =10V	—	—	200	nA
Rise Time	T _r	V _{ce} =5V, I _o =0.1mA, R _L =1KΩ	—	2000	—	ns
Fall Time	T _f	V _{ce} =5V, I _o =0.1mA, R _L =1KΩ	—	3000	—	ns

Company Headquarters

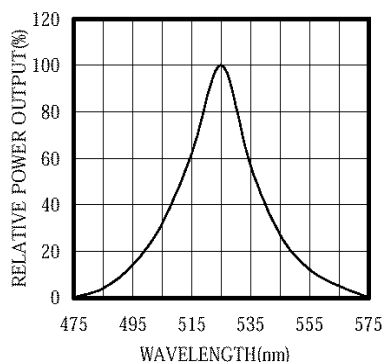
3 Northway Lane North
Latham, New York 12110
Toll Free: 800.984.5337
Fax: 518.785.4725

West Coast Sales Office

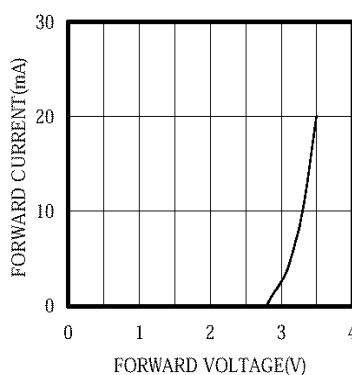
950 South Coast Drive, Suite 225
Costa Mesa, California 92626
Toll Free: 800.984.5337
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MTRS5250T Graphs

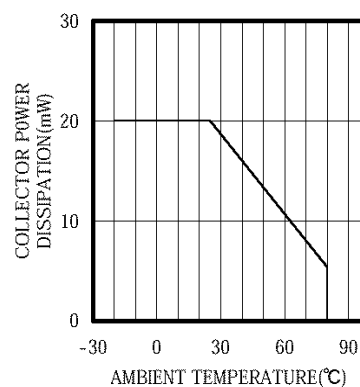
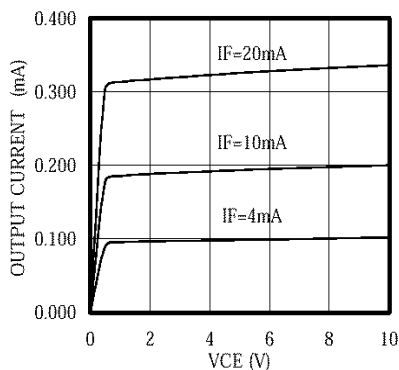
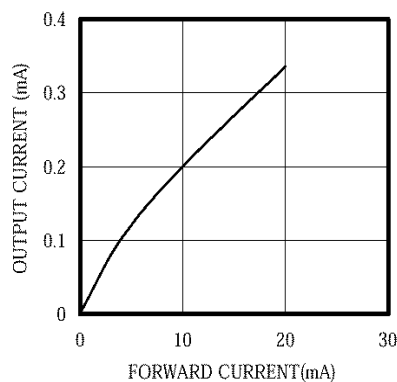
SPECTRAL OUTPUT



FORWARD I-V CHARACTERISTICS



THERMAL DERATING CURVE

 I_o vs V_{CE}  I_F vs I_o
 $V_{CE} = 10V$  I_o VS DISTANCE