



Photo Relector

MTRS9520

Features

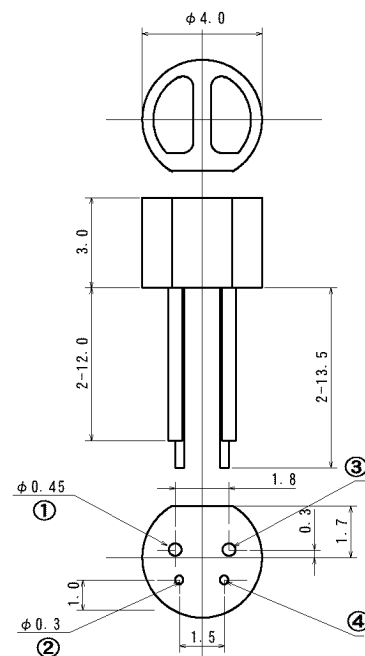
High Reliability
Compact Package

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	60	—	mA
Pulsed Forward Current	I _{FP}	1.00	tw=10μs, T=10mS	A
Reverse Voltage	V _R	5	—	V
Power Dissipation	P _D	100.00	—	mW
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 PD Cathode
② LED Anode ④ PD Anode

Opto-Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F =20mA	—	1.10	1.40	V
Reverse Current	I _R	V _R =5V	—	—	10	μA
Light Current	I _L	I _F =20mA, V _R =10V, d=1mm*	.50	.90	—	μA
Dark Current	I _D	V _R =10V	—	—	10	μA
Peak Sensitivity Wavelength	λ _p	I _F =20mA	—	950	—	nm
Spectral Line Half Width	Δλ	I _F =20mA	—	50	—	nm
Cross-Talk	I _x	I _F =20mA, V _{ce} =10V	—	—	1	%
Rise Time	T _r	V _{ce} =5V, I _o =0.1mA, R _L =1KΩ	—	2000.00	—	ns
Fall Time	T _f	V _{ce} =5V, I _o =0.1mA, R _L =1KΩ	—	2000.00	—	ns

* Measured by reflecting with Aluminum evaporated mirror (d=1.00mm)

Company Headquarters

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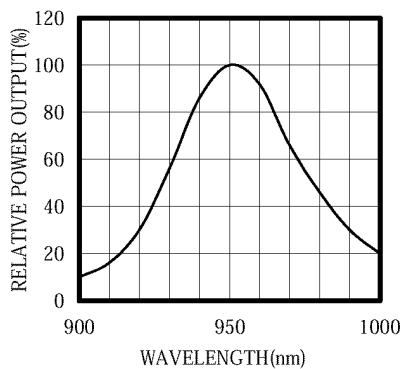
Web: www.marktechopto.com | Email: info@marktechopto.com

West Coast Sales Office

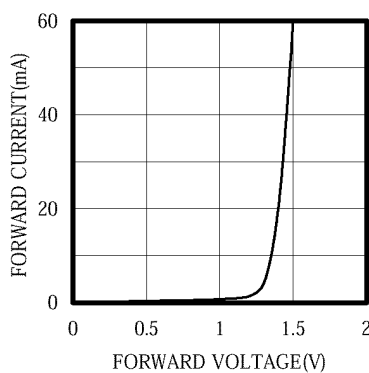
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MTRS9520 Graphs

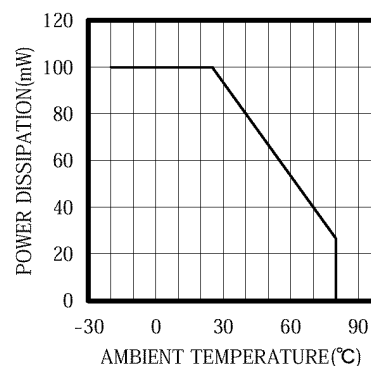
SPECTRAL OUTPUT



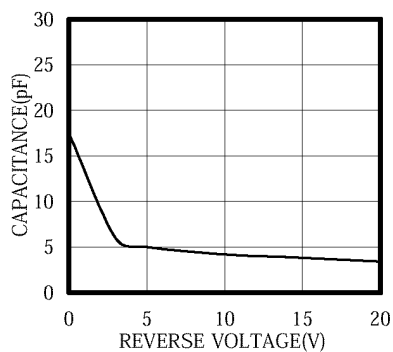
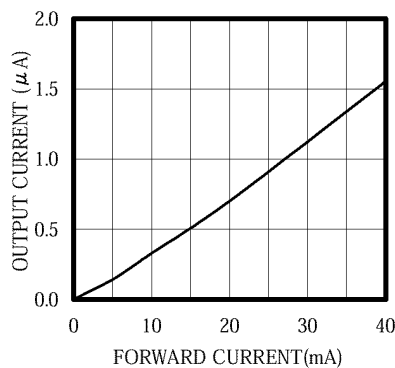
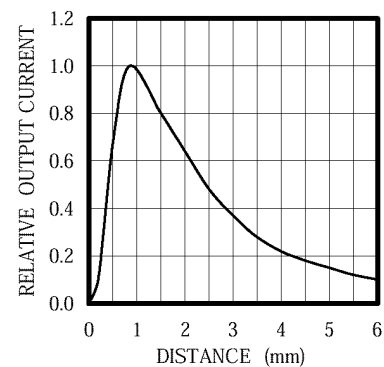
FORWARD I-V CHARACTERISTICS



THERMAL DERATING CURVE



CAPACITANCE vs REVERSE VOLTAGE

IF VS I_o @VR=10VI_o VS DISTANCE

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