

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Product No: MTE9440M3A

## Peak Emission Wavelength: 940nm

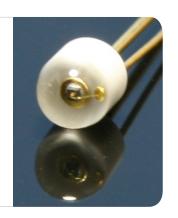
The 940nm IR emitter series is designed for applications requiring high output and precise optical / mechanical axis alignment. Custom package solutions and sorting are available.

## **FEATURES**

- > Ceramic Package
- > High Output Power
- > Compact
- > High Reliability

## **APPLICATIONS**

- > Optical Switches
- > Optical Sensor



Ratings (Ta	=25°C)			Pb V
SYMBOL	RATINGS	UNIT		lead-free ROHS
IF	60	mA		
IFP	0.5	Α		
VR	5	V		
PD	100	mW		
Topr	-20 ~ +85	°C		
Tstg	-30 ~ +100	°C		
Tj	100	°C		
Tls	260	°C		
	SYMBOL  IF  IFP  VR  PD  Topr  Tstg  Tj	IF 60 IFP 0.5 VR 5 PD 100 Topr -20 ~ +85 Tstg -30 ~ +100 Tj 100	SYMBOL         RATINGS         UNIT           IF         60         mA           IFP         0.5         A           VR         5         V           PD         100         mW           Topr         -20 ~ +85         °C           Tstg         -30 ~ +100         °C           Tj         100         °C	SYMBOL         RATINGS         UNIT           IF         60         mA           IFP         0.5         A           VR         5         V           PD         100         mW           Topr         -20 ~ +85         °C           Tstg         -30 ~ +100         °C           Tj         100         °C

<sup>\*1:</sup> Tw=10µsec, T=10msec. \*2: Time 5 Sec max, Position: Up to 3mm from the body.

MAX

ITEMS	SYMBOL	CONDITIONS	MIN	TYP
Power Output	PO	IF=20mA		4.0
Forward Voltage	VF	IF=20mA		1.2
Reverse Current	IR	VR=5V		

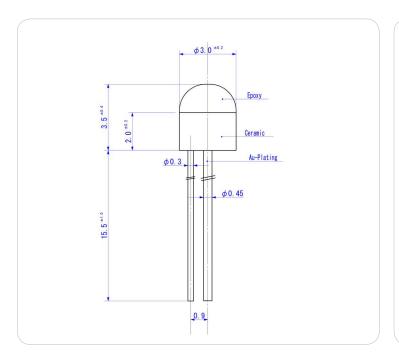
Electrical & Optical Characteristics (Ta = 25°C)

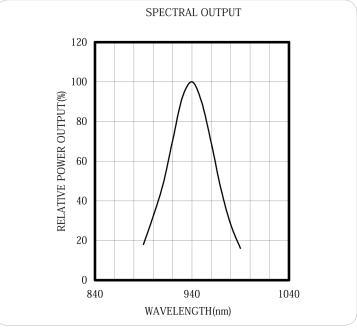
VF	IF=20mA		1.2	1.5	V
IR	VR=5V			10	μΑ
λρ	IF=20mA		940		nm
Δλ	IF=20mA		50		nm
θ	IF=20mA		±80		deg
Tr	IFP=50mA		1.0		μS
Tf	IFP=50mA		1.0		μS
Cj	1MHz, V=0V		20		рF
P/T	IF=10mA		-0.5		%/°C
V/T	IF=10mA		-1.3		mV/°C
	IR λp Δλ Θ Τr Τf Cj P/T	IR VR=5V λp IF=20mA Δλ IF=20mA Θ IF=20mA Tr IFP=50mA Tf IFP=50mA Cj 1MHz, V=0V P/T IF=10mA	IR VR=5V λp IF=20mA Δλ IF=20mA $\Theta$ IF=20mA  Tr IFP=50mA  Tf IFP=50mA  Cj 1MHz, V=0V  P/T IF=10mA	IR VR=5V λρ IF=20mA 940   Δλ IF=20mA 50   Θ IF=20mA $\pm 80$ Tr IFP=50mA 1.0   Tf IFP=50mA 1.0   Cj 1MHz, V=0V 20   P/T IF=10mA0.5	IR VR=5V 10 10 $\lambda p$ IF=20mA 940 $\Delta \lambda$ IF=20mA 50 $\pm 80$ Tr IFP=50mA 1.0 Tf IFP=50mA 1.0 Cj 1MHz, V=0V 20 P/T IF=10mA 0.5 $\pm 80$

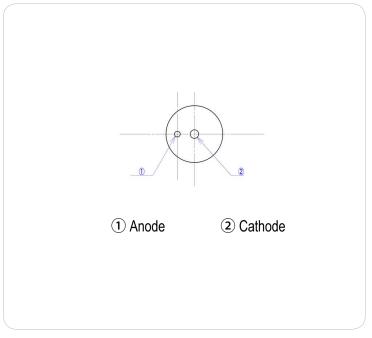
2011-08-11

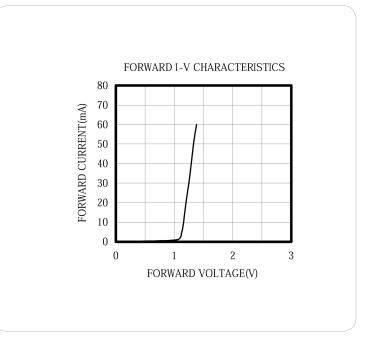
UNIT mW





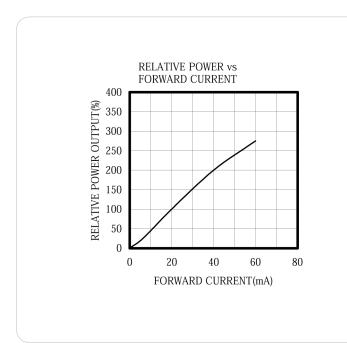


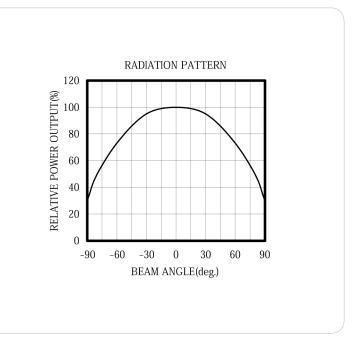


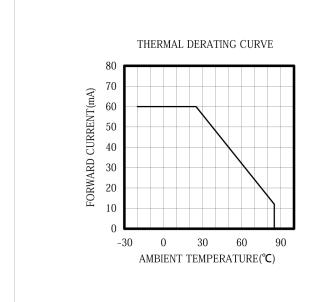


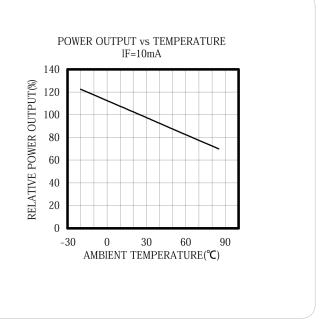
Unit: mm, Tolerance: ±0.2







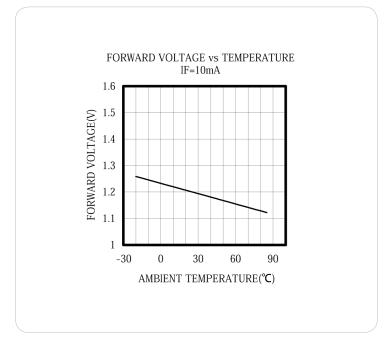


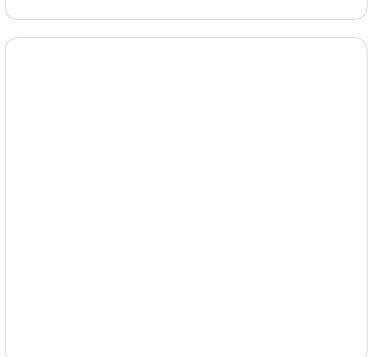






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The information contained herein is subject to change without notice.

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