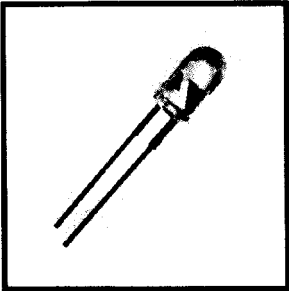


# INFRA-RED EMITTING DIODE

# ZME50

## DESCRIPTION

THE ZME50 IS A GaAlAs INFRA-RED EMITTING DIODE MOULDED IN A CLEAR 5mm Ø PACKAGE WITH A MEDIUM WIDE BEAM, 50°, RADIATION EMISSION ANGLE. THE ZME50 IS SPECTRALLY MATCHED TO THE BPW41 SERIES PIN PHOTODIODES WHICH TOGETHER PROVIDE IDEAL COMPLEMENTS IN I.R. REMOTE CONTROL APPLICATIONS.



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C).

PARAMETER	SYMBOL	ZME50	UNIT
Continuous Forward Current	I <sub>F</sub>	100	mA
Peak Pulsed Forward Current *	I <sub>FM</sub>	1	A
Reverse Voltage	V <sub>R</sub>	6	V
Power Dissipation @ T <sub>amb</sub> = 25°C	P <sub>TOT</sub>	175	mW
Operating And Storage Temperature Range		-40 TO +100	°C
Lead Soldering Temperature ( <sup>1</sup> / <sub>16</sub> " from case)		260	°C

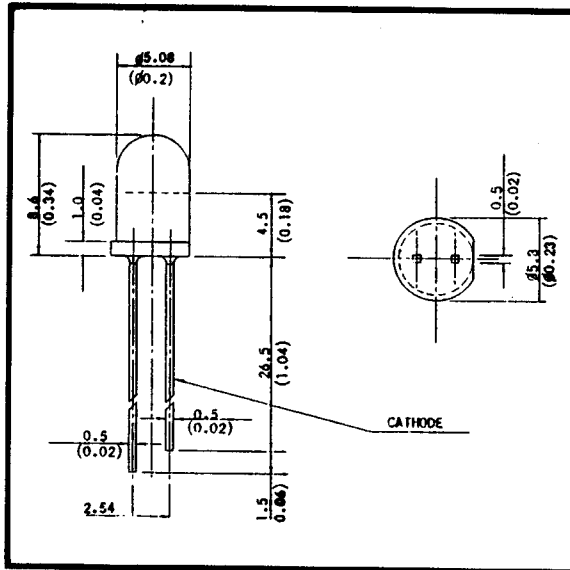
\* Pulsed width = 10µS, duty Ratio = 0.01.

# ZME50

## CHARACTERISTICS (at $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN	TYP.	MAX.	UNIT	CONDITIONS.
Radiant Power	$P_O$	2.62	4.5		mW	$I_F=20\text{mA}$
Forward Voltage	$V_F$		1.6	2.0	V	$I_F=100\text{mA}$
Reverse Current	$I_R$			10	$\mu\text{A}$	$V_R=5\text{V}$
Switching Times	$t_r$ $t_f$		2 1		$\mu\text{s}$ $\mu\text{s}$	$I_F=20\text{mA}$
Peak Wavelength	$\lambda_P$		940		nm	$I_F=20\text{mA}$
Spectral Bandwidth	$\Delta\lambda$	45			nm	$I_F=20\text{mA}$
Half Angle	$\varnothing$		$\pm 25$		DEG	

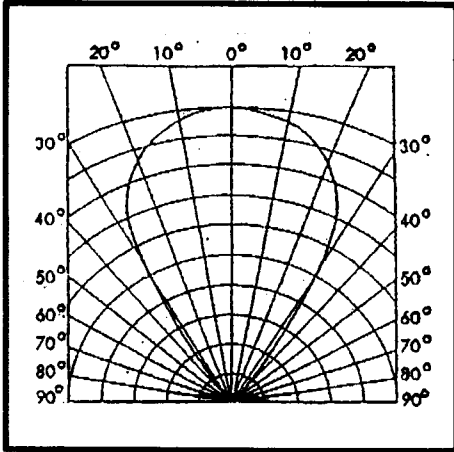
## PACKAGE DETAILS



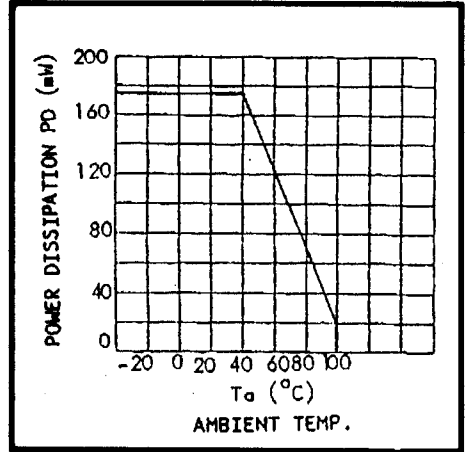
# ZME50

## TYPICAL CHARACTERISTICS.

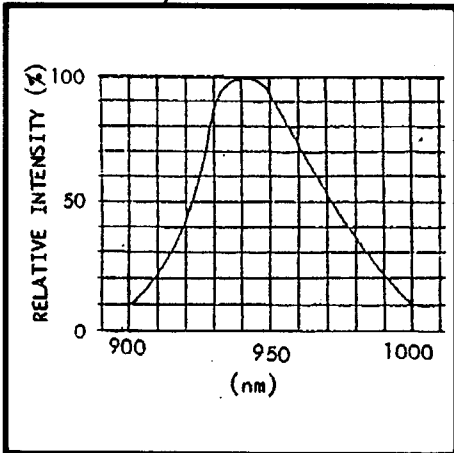
### RADIATION PATTERN (TA = 25°C)



### POWER DISSIPATION



### RELATIVE INTENSITY VS WAVELENGTH



### FORWARD CURRENT VS FORWARD VOLTAGE

