



GaAs T-1 $\frac{3}{4}$ STANDARD 5 ϕ INFRARED EMITTING DIODE

LTE-4208/4208C

T-41-11

FEATURES

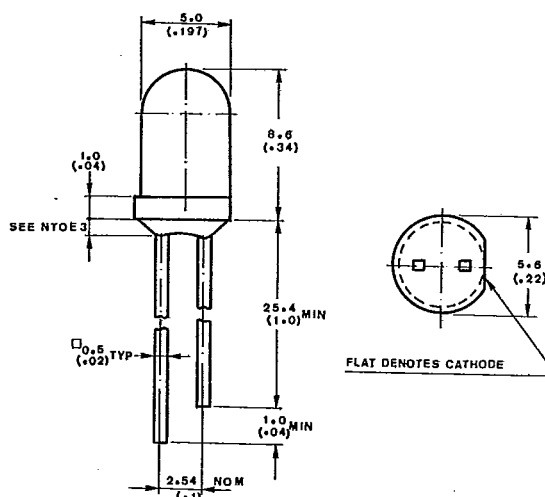
- SELECTED TO SPECIFIC ON-LINE INTENSITY AND RADIANT INTENSITY RANGES.
- LOW COST PLASTIC END LOOKING PACKAGE.
- MECHANICALLY AND SPECTRALLY MATCHED TO THE LTR-3208 SERIES OF PHOTOTRANSISTOR.
- THE LTE-4208 SERIES ARE MADE WITH GALLIUM ALUMINUM ARSENIDE WINDOW LAYER ON GALLIUM ARSENIDE INFRARED EMITTING DIODES.

DESCRIPTION

The LTE-4208 series are high intensity Gallium Arsenide infrared emitting diodes mounted in clear plastic end looking packages. LTE-4208 series provides a broad range of intensity selection.

All electrical parameters are 100% tested by manufacturing. The specifications are guaranteed to a cumulative .65% AQL.
C-smoke color lens.

PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (.010") unless otherwise noted.
3. Protruded resin under flange is 1.5mm (.059") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.

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ABSOLUTE MAXIMUM RATINGS AT $T_A = 25^\circ\text{C}$

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	100	mW
Peak Forward Current (300pps, 1 μ s Pulse)	3	A
Continuous Forward Current	50	mA
Reverse Voltage	5	V
Operating Temperature Range	-55°C to $+100^\circ\text{C}$	
Storage Temperature Range	-55°C to $+100^\circ\text{C}$	
Lead Soldering Temperature [1.6mm (0.063in) From Body]	260 $^\circ\text{C}$ for 5 Seconds	

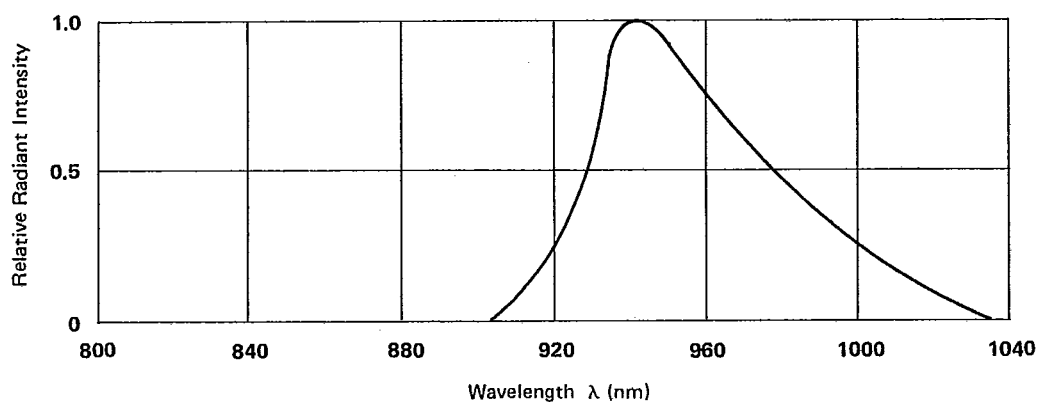


FIG. 1 SPECTRAL DISTRIBUTION



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ELECTRICAL/OPTICAL CHARACTERISTICS AND CURVES AT $T_A = 25^\circ\text{C}$

PARAMETER	SYMBOL	PART NO. LTE-	MIN	TYP	MAX	UNIT	TEST CONDITION
Aperture Radiant Incidence	E_a	4208	0.5	1.4		mW/cm^2	$I_F = 20\text{mA}$
		4208C	0.5	1.4			
Peak Emission Wavelength	λ_{Peak}			940		nm	$I_F = 20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$			50		nm	$I_F = 20\text{mA}$
Forward Voltage	V_F			1.2	1.6	V	$I_F = 20\text{mA}$
Reverse Current	I_R			0	100	μA	$V_R = 5\text{V}$
Viewing Angle (See fig. 5)	$2\theta_{1/2}$			20		deg.	

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

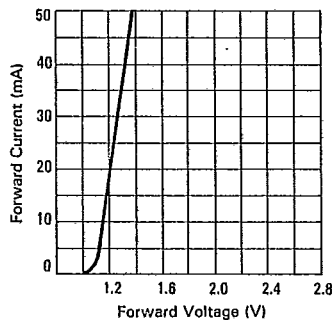


FIG. 2 FORWARD CURRENT VS. FORWARD VOLTAGE

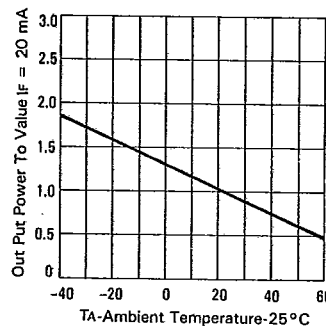


FIG. 3 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

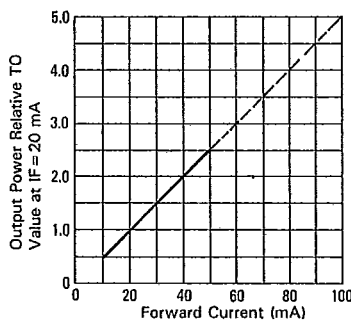


FIG. 4 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

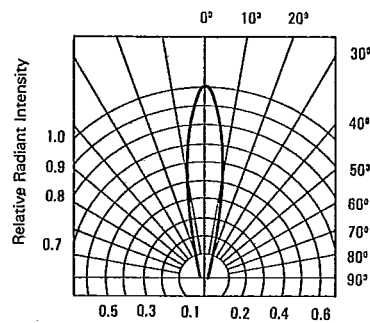


FIG. 5 RADIATION DIAGRAM

PACKAGING

T-90-20

Reel Packaging (Axial Lead Units)

DEVICE TYPE	COMPONENT SPACE (MM) "A"	TAPE SPACE (MM) "B"	REEL DIA (MM) "D"	QUANTITY (EA)		CARTON	
				REEL	CARTON	SIZE (MM)	WEIGHT (KG)
DO-41 DO-41L	5±0.5	52.4±1.5	326~336	5000	20K	355 x 355 x 355	10.5
DO-201AD	10±0.5	52.4±1.5	326~336	1200	4.8K	355 x 355 x 355	9.0
P6(Aleg)	10±0.5	52.4±1.5	326~336	700	2.8K	355 x 355 x 355	8.8

The C dimension of Fig. 3 is between 3.17mm and 635mm greater than the length of the component involved.

FIG. 1

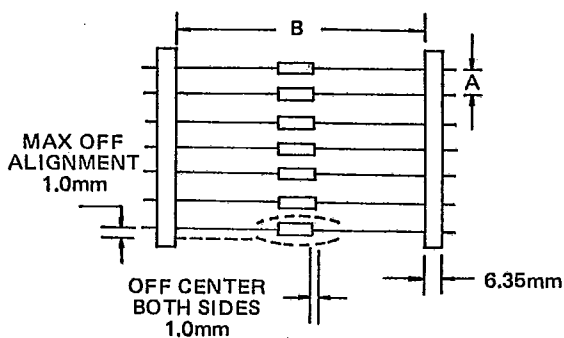


FIG. 2

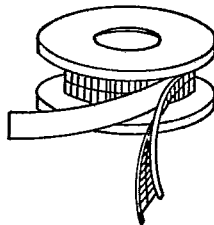
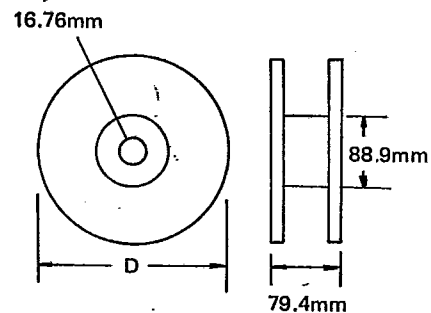


FIG. 3

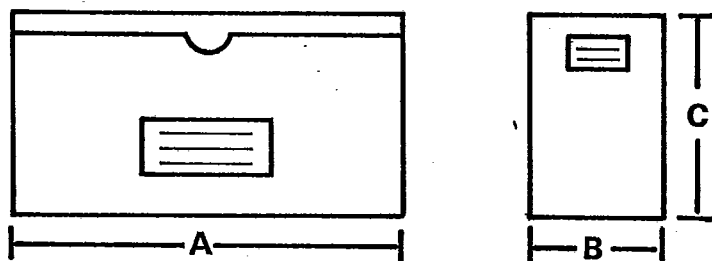


Bulk Packaging (Axial Lead Devices and Bridge Rectifiers)

DEVICE TYPE	PACKAGING SIZE (MM)		QUANTITY (EA)		APPROX GROSS WEIGHT (KG)	
	BOX	CARTON	BOX	CARTON	BOX	CARTON
DO-41 DO-41L	196 x 84 x 20	450 x 210 x 250	1000	50K	0.38	20
DO-201AD	305 x 93 x 59	355 x 355 x 355	1000	20K	1.35	28
P6(Aleg)	305 x 93 x 59	355 x 355 x 355	500	10K	1.2	24.5
PBM	357 x 125 x 60	530 x 360 x 340	1000	20K	1.5	32.3
PBDF	495 x 155 x 145	500 x 325 x 305	5000	20K	5.1	21.5
PBP	357 x 125 x 60	530 x 360 x 340	500	10K	1.5	31.5
PBL	375 x 220 x 155	470 x 385 x 455	1000	5K	5.7	30.5
PBPC-6	357 x 125 x 60	560 x 360 x 340	250	5K	1.1	22
PBPC-8	357 x 125 x 60	560 x 360 x 340	250	5K	1.7	35
KBPC	375 x 220 x 365	470 x 390 x 385	500	1K	15.1	31.5
KBPC-W	375 x 220 x 365	470 x 390 x 385	500	1K	14.5	30.0

AMMO BOX PACKAGING

BOX SIZE



Unit:m. m.

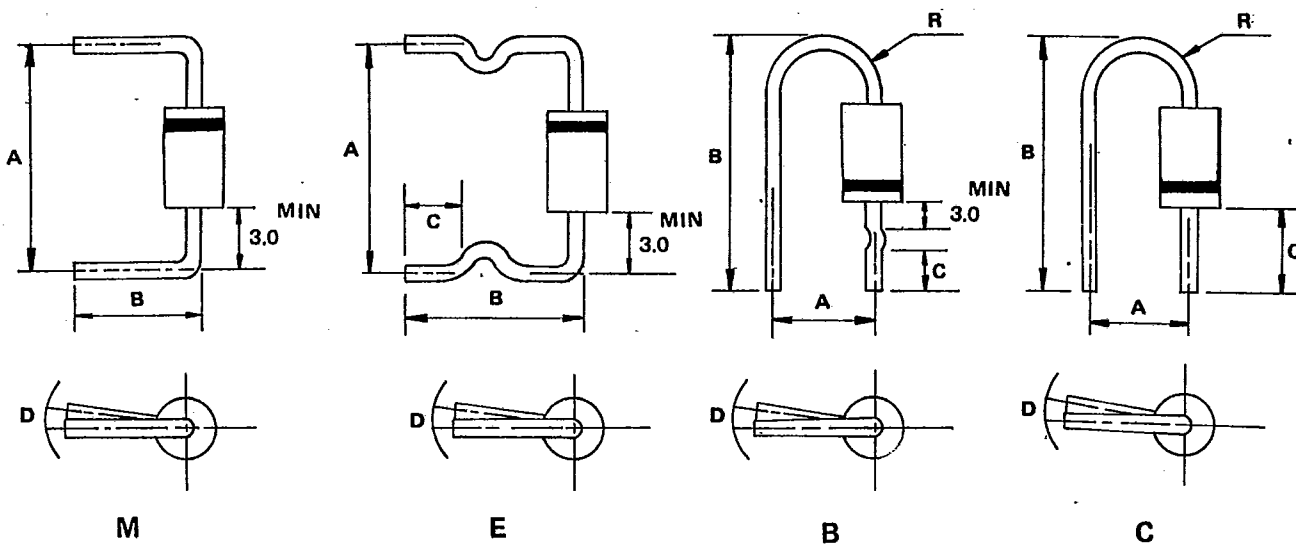
Packaging	Products Outline	Dimension *A*	Dimension *B*	Dimension *C*	Q'ty per BOX
26MM Horizontal Ammo Pack	DO-41 DO-41L(0.6mm Lead)	255	50	95	3K
					3K
52MM Horizontal Ammo Pack	DO-41and DO-41L DO 201AD	250	75	92	3K
					0.8K

CARTON SIZE

Unit:m. m.

Packaging	Products Outline	length	Width	High	Q'ty Per Carton
26MM Horizontal Ammo Pack	DO-41 DO-41L(0.6mm Lead)	330	310	268	42K
52MM Horizontal Ammo Pack	DO-41and DO-41L DO 201AD	355	355	340	48K
					12K

PREFORMED LEAD DRAWING



Case type	Preformed type	A (mm)		B (mm)		C (mm)		D (mm)		R (mm)	
		range	tolerance	range	tolerance	range	tolerance	range	tolerance	range	tolerance
D041	M	9.0-20.0	1.0	8.0-22.0	±0.5	—	—	1.5	max	—	—
	E	11.0-20.0	±1.0	11.0-16.0	±1.0	4.0-5.0	±0.5	1.5	max	—	—
	B	7.5	±0.5	19.0-22.0	±0.5	7.5	±0.5	1.5	max	2.5-4.0	Typ
	C	4.5	±0.8	18.0-19.0	±0.5	9.0	±0.5	1.5	max	2.5-4.0	Typ
D0201AD	M	15.0-20.0	±1.0	8.0-22.0	±1.0	—	—	2.0	max	—	—
	E	15.0-20.0	±1.0	10.0-22.0	±1.0	3.0-15.0	±0.5	2.0	max	—	—
P6(Aleg)	M	15.0-20.0	±1.0	8.0-22.0	±1.0	—	—	2.0	max	—	—