



Infrared Emitting Diode

Features

- High output power
- Very high speed
- High reliability
- Capable of pulse operation
- Long life
- Low cost

Application

- Remote control
- Smoke detector
- Card and tape reader light source
- Optical switching
- Photo chopper

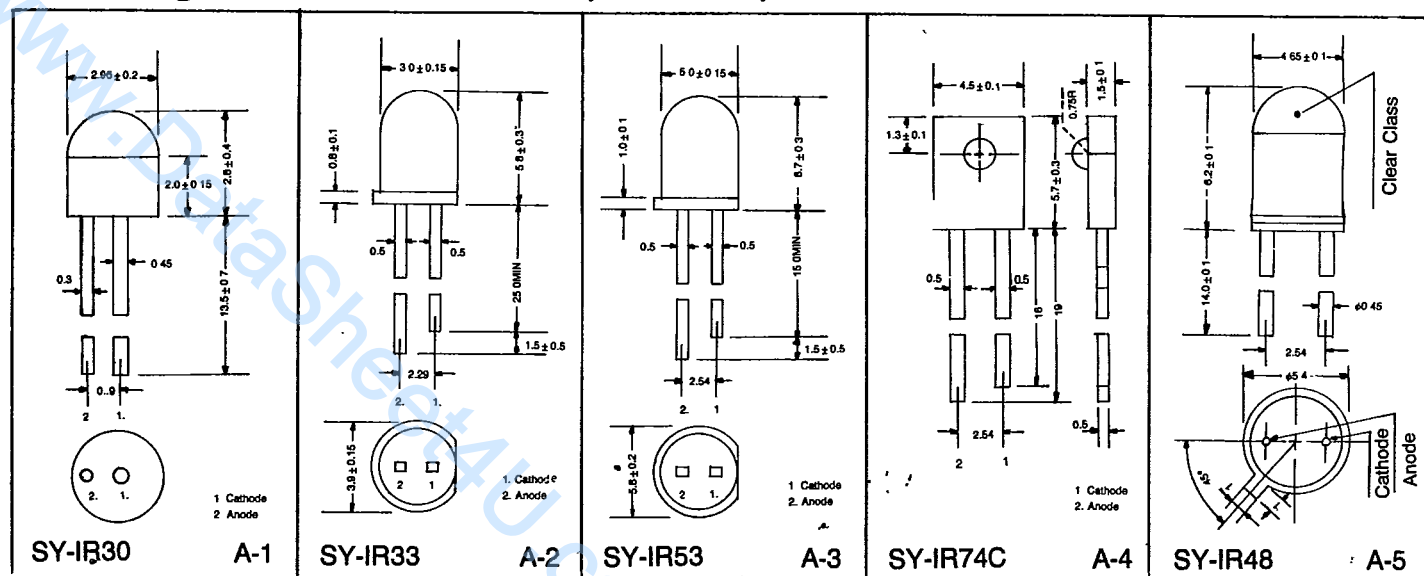
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Ratings	Symbol	Value					Units
		SY-IR30	SY-IR33	SY-IR53	SY-IR74 C	SY-IR48	
Power dissipation	P	80	80	100	100	200	mW
Forward current	IF	60	60	100	60	100	mA
Reverse voltage	VR	5	5	5	5	6	V
Operational temperature	Topr	-20 ~ +70	-20 ~ +70	-30 ~ +70	-20 ~ +70	-40 ~ +100	°C
Storage temperature	Tstg	-20 ~ +80	-20 ~ +80	-30 ~ +80	-20 ~ +80	-55 ~ +125	°C
Soldering temperature	Tsold	240		260	240	240	°C

Electro-Optical Characteristics ($T_a = 25^\circ\text{C}$)

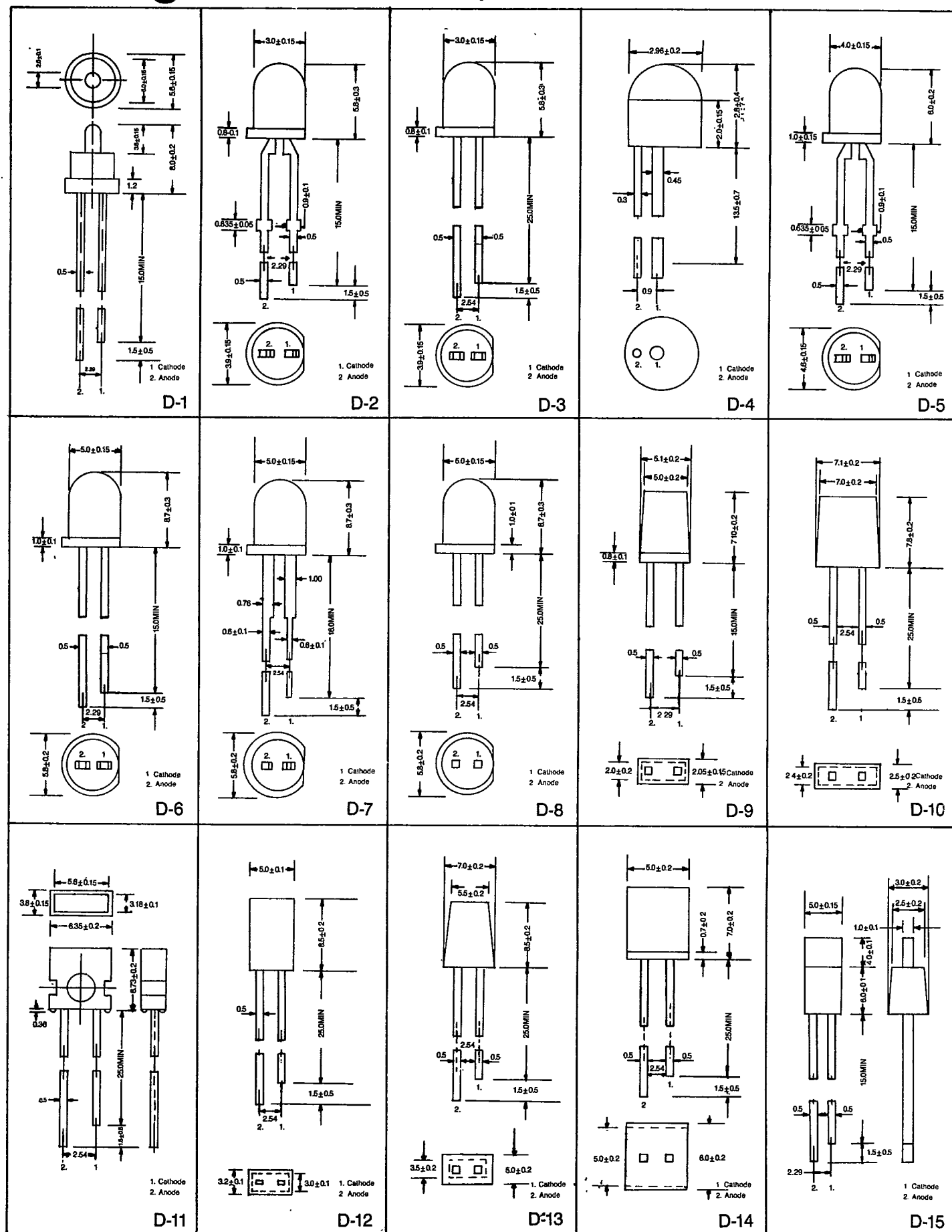
Part Number	VF		Po		λ_P	$\Delta\theta$	Package
	Max (V)	IF (mA)	Typ (mW)	IF (mA)	Typ (nm)	Typ (deg)	
SY-IR30	1.6	40	1.8	40	940	± 55	Ceramic epoxy resin (A-1)
SY-IR33	1.6	40	3.5	40	940	± 20	Epoxy resin (A-2)
SY-IR53	1.7	100	20	100	940	± 30	Epoxy resin (A-3)
SY-IR74 C	1.7	60	2.0	60	940	± 30	Epoxy resin (A-4)
SY-IR48	1.7	100	15	100	940	± 10	To-18 (A-5)

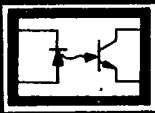
Package Dimension: (Unit: mm)



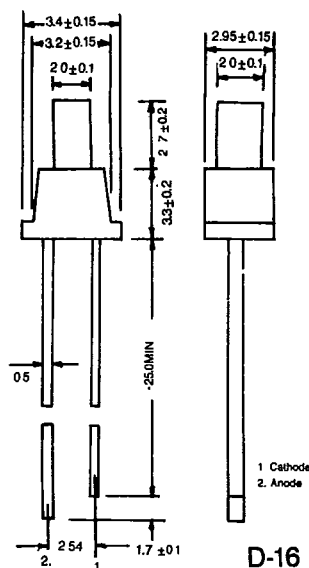


Package Dimensions (Unit:mm)

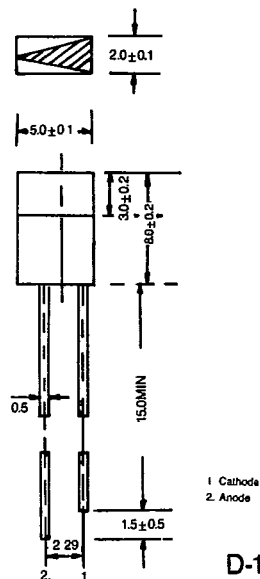




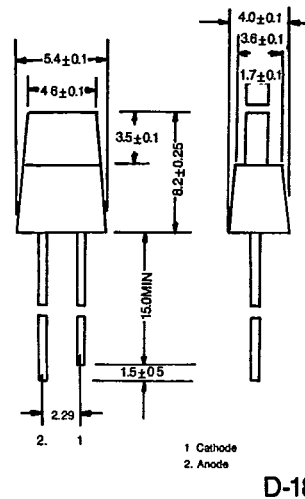
Package Dimensions (Unit:mm)



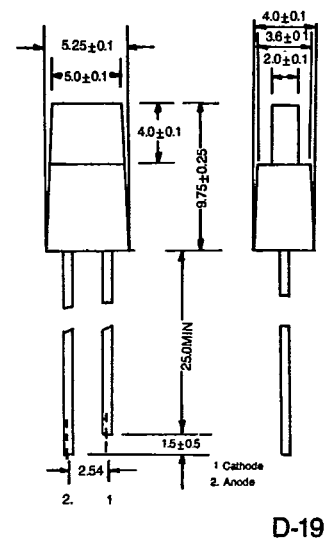
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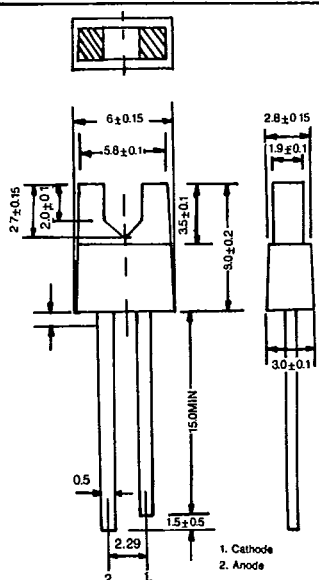
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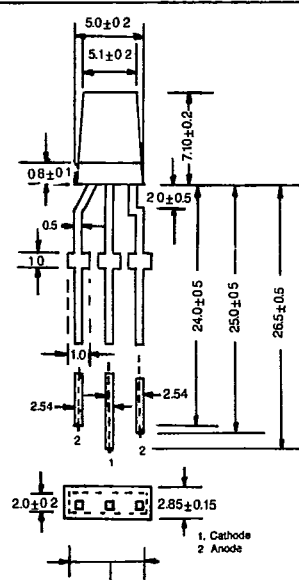
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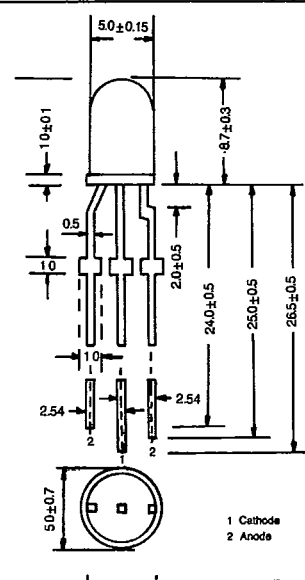
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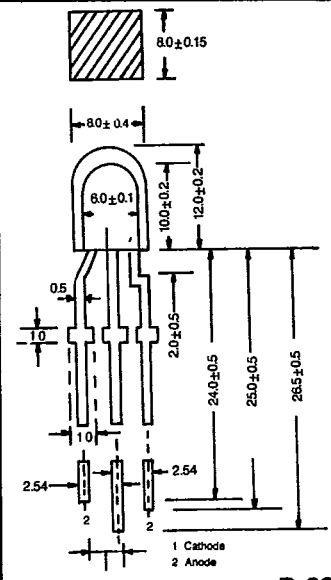
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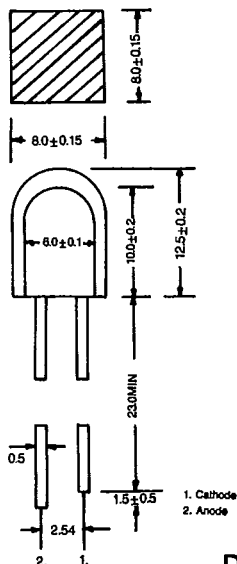
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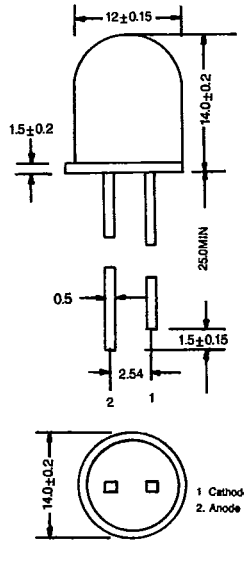
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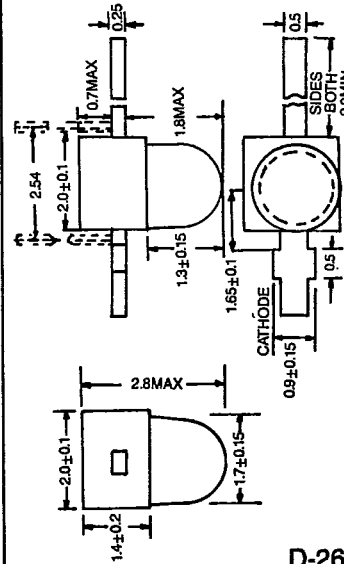
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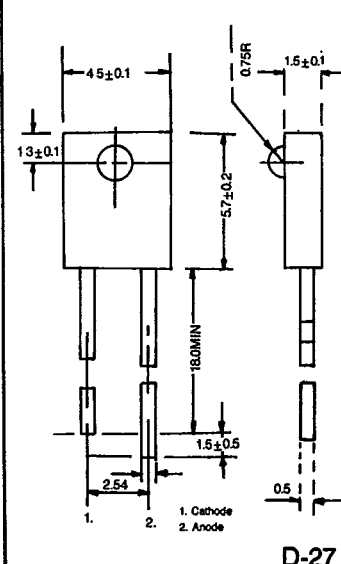
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D-25



D-26



D-27