



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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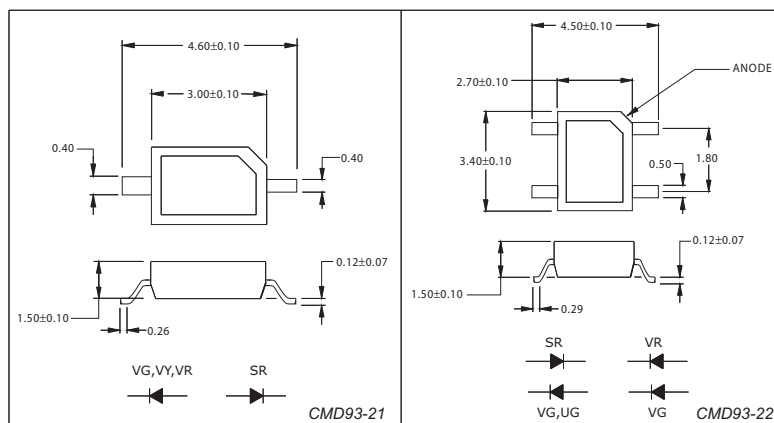
Chicago Miniature Lighting, LLC

Lighting the world since 1910

CMD93-21 & 22 Series SMT LEDs

CMD93-21 & 22 Series SMT LEDs

DESCRIPTION AND FEATURES



All dimensions in mm.

Surface Mount Technology

- Tape and reel packaged for high-speed autoinsertion.
- Convection and vapor-phase reflow compatible.
- Compact form enables high density placement.
- 93-21 2000 pieces per reel
- 93-22 1000 pieces per reel

Leading Edge LED Optoelectronic Performance

- Consistent high brightness.
- Bi-color available.
- Gull wing lead form.

Exceptional Reliability

- Stringent process controls assure quality.
- Extensive qualification testing to meet strictest requirements.
- Designed to permit easy post-reflow solder joint inspection.

ELECTRO-OPTICAL CHARACTERISTICS

Part Number	Emitted Color	Lens Color	Package Type	Luminous Intensity		Forward Voltage		Rated Current (mA)	Peak Wavelength (nm)	View Angle (degrees)
				Min. (mcd)	Typ. (mcd)	Typ. (V)	Max. (V)			
CMD93-21VGC/TR8	Green	Clear	Single	15.0	25.0	2.1	2.8	20	570	130
CMD93-21VYC/TR8	Yellow	Clear	Single	7.0	12.0	2.0	2.8	20	585	130
CMD93-21VRC/TR8	Red	Clear	Single	7.0	12.0	2.0	2.8	20	640	130
CMD93-21SRC/TR8	Red	Clear	Single	25.0	40.0	1.7	2.4	20	660	130
CMD93-22VGC/TR8	Red	Clear	Dual	7.0	12.0	2.0	2.8	20	640	125
	Green	Clear	Dual	12.0	20.0	2.1	2.8	20	570	125
CMD93-22SRVGC/TR8	Red	Clear	Dual	24.0	40.0	1.7	2.4	20	660	125
	Green	Clear	Dual	12.0	20.0	2.1	2.8	20	570	125
CMD93-22SRUGC/TR8	Red	Clear	Dual	24.0	40.0	1.7	2.4	20	660	125
	Green	Clear	Dual	13.5	20.0	2.1	2.8	20	565	125

ABSOLUTE MAXIMUM RATINGS

	Green	Yellow	Red	Units
Power Dissipation.....	105.....	105.....	100.....	mW
Storage Temperature.....	-25 to +90.....	-25 to +90.....	-25 to +90.....	°C
Operating Temperature.....	-25 to +80.....	-25 to +80.....	-25 to +80.....	°C
Peak Forward Current (1µs @ 10% duty cycle).....	150.....	150.....	150.....	mA
Reverse Voltage (IR=100µA).....	5.0.....	5.0.....	5.0.....	V
Lead Solder Time @ 260°C.....	10.....	5.....	5.....	Seconds
Forward Current.....	25.....	30.....	30.....	mA

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Chicago Miniature Lighting, LLC reserves the right to make specification revisions that enhance the design and/or performance of the product