



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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Micro Commercial Components



Micro Commercial Components
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CLD20B

20mA Current Limiting Diode

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
Epoxy meets UL 94 V-0 flammability rating
Moisure Sensitivity Level 1
Wide operating voltage range
Immediate ture-on
Negative temperature coefficient
ESD Protected up to 6KV (HBM)

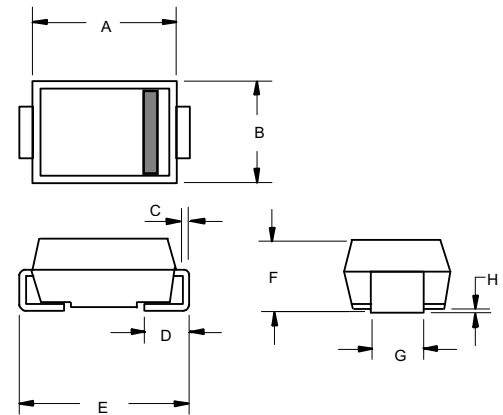
Maximum Ratings

- Operating Temperature: -55°C to +150°C
Storage Temperature: -55°C to +150°C

Table with 4 columns: RATING, SYMBOL, VALUE, UNITS. Rows include Anode-Cathode Voltage (Vak max, 45, V) and Reverse Voltage (VR, 500, mV).

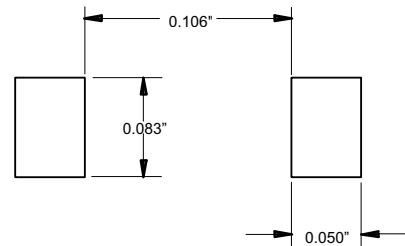
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

DO-214AA (SMB) (LEAD FRAME)



DIMENSIONS table with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows A through H.

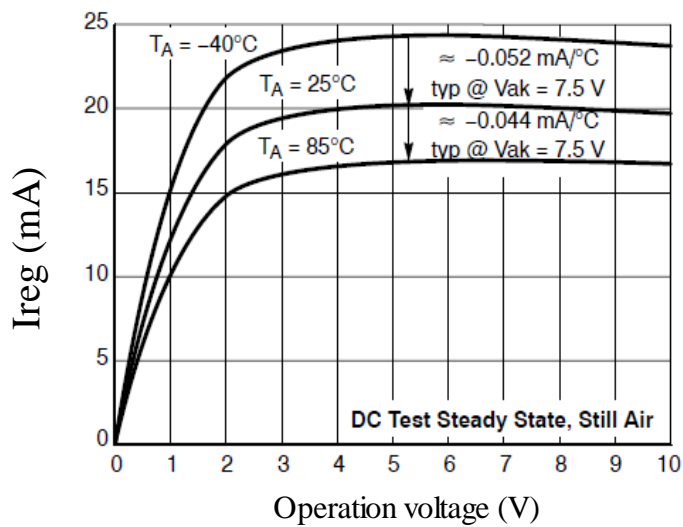
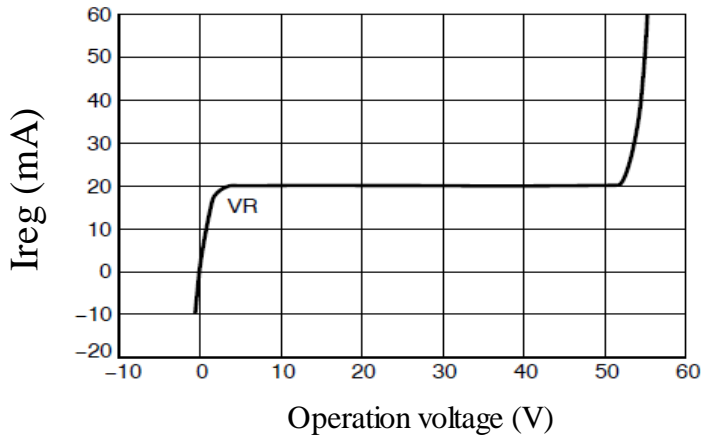
SUGGESTED SOLDER PAD LAYOUT



## ELECTRICAL CHARACTERISTICS @25°C

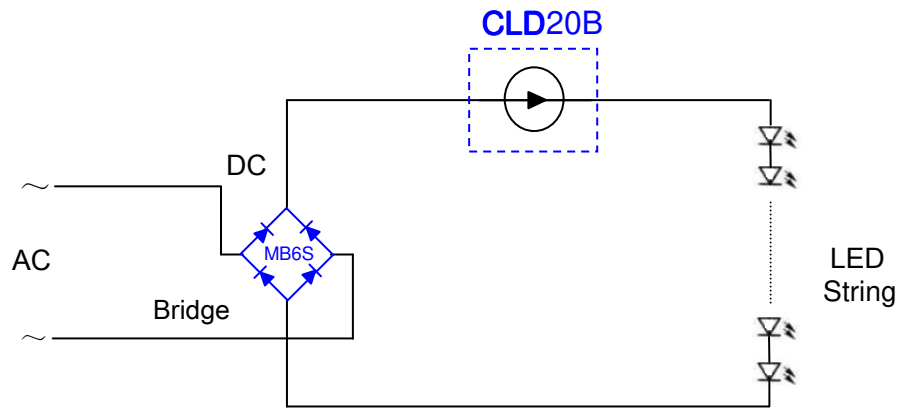
Part number	Steady Current I <sub>reg</sub> (SS)			Limiting Voltage @ 80% I <sub>reg</sub>	Test Voltage	Peak Operating Voltage	Rating Voltage
	Min (mA)	Typ. (mA)	Max (mA)				
CLD20B	17	20	23	4.5	10	45	25

Performance curve for Current Limiting Diode



# CLD20B

## Application



Type Application Circuit  
( 20mA each LED String)

Number of LED's that can be connected is determined by:

$$\text{LEDs} = (\text{Vdc} - \text{Vak}) / \text{LED } V_F$$

Example:  $V_{ac} = 110V$ ,  $V_{ak} = 45V$ ,  $V_F = 3.5V @ 20mA$

Using our **P/N:MB6S** bridge for whole wave rectifier

After rectifier, Output  $V_{dc} = 150V$

$(150V_{dc} - 45V_{dc}) / 3.5V_{dc} = 30$  LEDs in series.



Micro Commercial Components

## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel:3Kpcs/Reel

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