



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.

Marking Code: B203

DO-214AA (SMB) (LEAD FRAME)

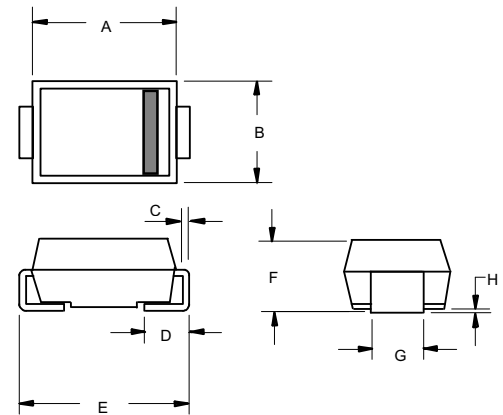
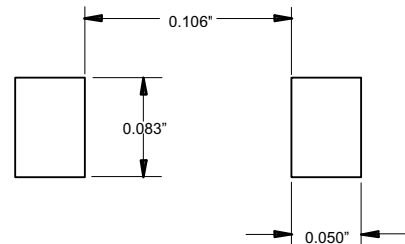


Table with 6 columns: DIM, INCHES (MIN, MAX), MM (MIN, MAX), NOTE. Lists dimensions A through H with their respective min/max values in inches and mm.

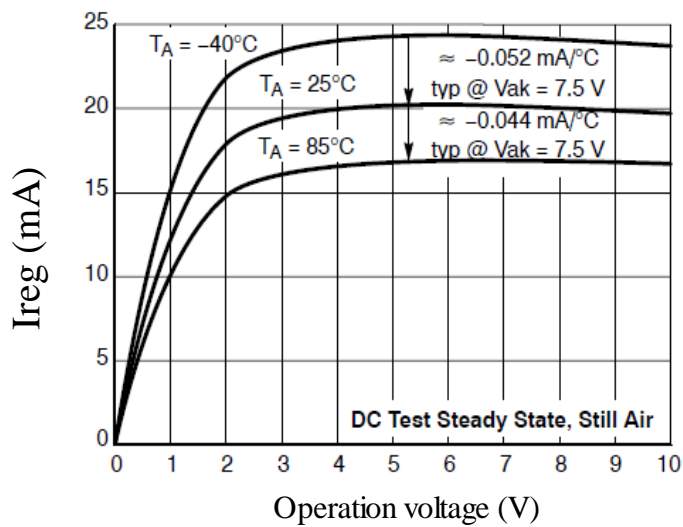
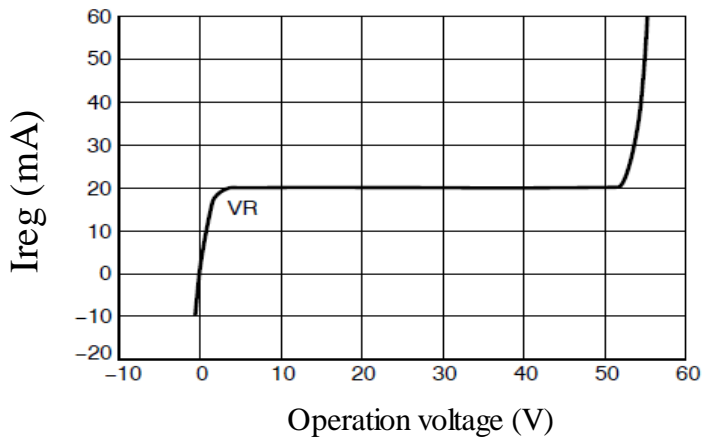
SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS @25°C

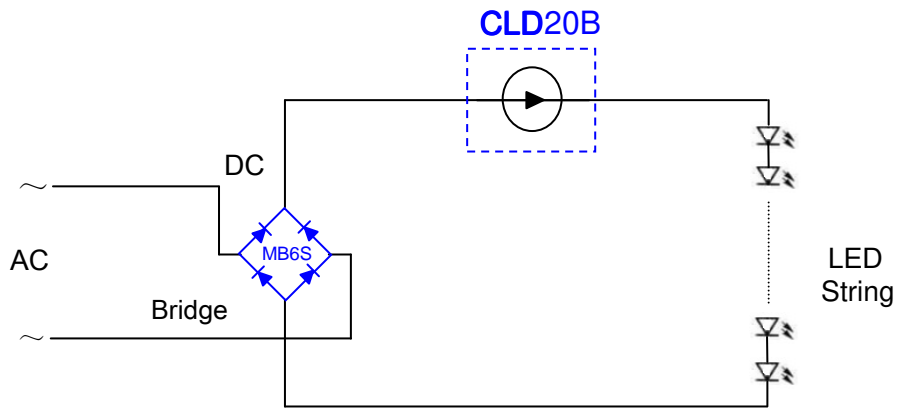
Part number	Steady Current I _{reg} (SS)			Limiting Voltage @ 80% I _{reg}	Test Voltage	Peak Operating Voltage	Rating Voltage
	Min (mA)	Typ. (mA)	Max (mA)				
CLD20B	17	20	23	4.5	10	45	25

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

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.



Ordering Information

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

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