

**Current Regulative Diode**  
**Surface Mount - 15-80mA**

**Description**

CRD is diode which supplies constant current to an electric circuit, even when power supply voltage fluctuations or load impedance fluctuations occur. CRD is used for current stabilization and current limiting.

**Features**

- ◆ Silicon technology
- ◆ Low power loss
- ◆ high efficiency
- ◆ Eliminate voltage overshoot
- ◆ Epoxy resin package
- ◆ Will not fatigue
- ◆ RoHS Compliant

**Mechanical Characteristics**

- ◆ Package: SMB
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: Epoxy Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 1 per J-STD-020

**Absolute Maximum Ratings**

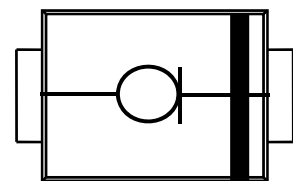
| Parameter                   | Symbol           | Value      | Units |
|-----------------------------|------------------|------------|-------|
| Operating Temperature Range | T <sub>J</sub>   | -55 to 150 | °C    |
| Storage Temperature Range   | T <sub>STG</sub> | -55 to 150 | °C    |

Marking Information



CRDxxx = Marking Code

Pin Configuration

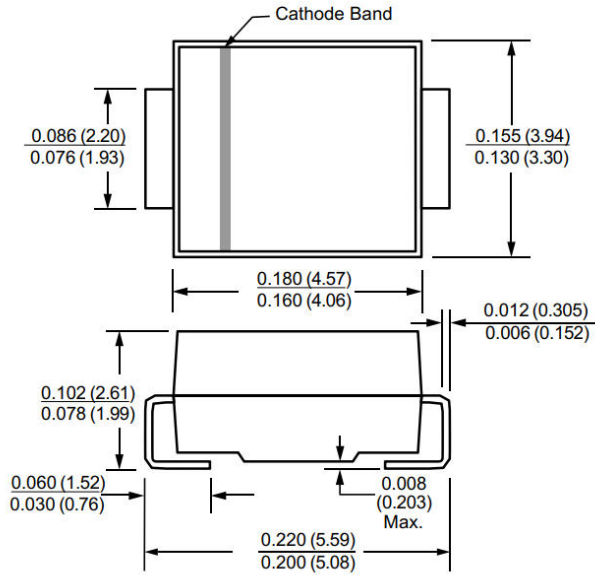


**Electrical Characteristics (TA=25°C unless otherwise noted)**

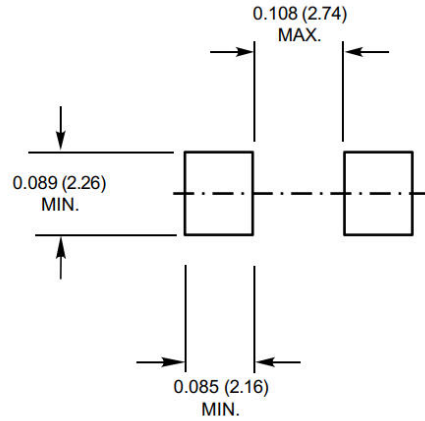
| Part Number | Marking Code | Pinch-Off Current<br>$I_P @ V=20V$ |      | Active Voltage $V_K$ | Max. Voltage Loading<br>$V_B \text{ max}$ | Max. Power Loading<br>$P_D$ |
|-------------|--------------|------------------------------------|------|----------------------|-------------------------------------------|-----------------------------|
|             |              | min                                | max  | $V_K @ 0.8I_{Pmin}$  | $V_B @ 1.1I_{Pmax}$                       | max                         |
|             |              | [mA]                               | [mA] | Max [V]              | [V]                                       | [w]                         |
| CRD015B     | 015B         | 12                                 | 18   | 3.2                  | 190                                       | 1.2                         |
| CRD020B     | 020B         | 16                                 | 24   | 3.5                  | 190                                       | 1.2                         |
| CRD025B     | 025B         | 22.5                               | 27.5 | 4.0                  | 190                                       | 1.2                         |
| CRD030B     | 030B         | 27                                 | 33   | 4.8                  | 190                                       | 1.2                         |
| CRD040B     | 040B         | 36                                 | 44   | 6.0                  | 190                                       | 1.2                         |
| CRD060B     | 060B         | 54                                 | 66   | 7.0                  | 190                                       | 1.2                         |
| CRD080B     | 080B         | 72                                 | 88   | 8.0                  | 190                                       | 1.2                         |

**Package Outline**

**DO-214AA SMB**



**Mounting Pad Layout**



**Summary of Packing Options**

| Package      | Packing Description | Packing Quantity | Industry Standard |
|--------------|---------------------|------------------|-------------------|
| DO-214AA SMB | Tape/Reel, 13" reel | 3000             | EIA-481-1         |