

Design Kits - Chip Diodes

The markets of portable communications, computing and video equipment are challenging the semiconductor industry to develop increasingly smaller electronic components. Today, designers of compact electronic systems are faced with board space constraints, thus driving the requirement for alternative packaging technologies. Functional integration and miniaturization is the key to success!

To aid this miniaturization campaign, a new generation of Chip Diodes from Bourns has emerged that offers the capability to provide a silicon diode with minimal packaging overhead. The small signal diodes are lead-free with Cu/Ni/Au plated terminations and are compatible with lead-free manufacturing processes, conforming many industry and government regulations on lead-free components.

Bourns offers MITE Schottky Barrier Diodes for rectification applications in compact chip package DO-216AA size format. The CD216A-B1 Schottky Rectifier Diode Series offer a forward current of 1 A with a choice of repetitive peak reverse voltage of 20 V up to 40 V.

Bourns Chip Diodes conform to JEDEC standards, easy to handle on standard pick and place equipment and their flat configuration makes roll away much more difficult.

Advantages

The Chip Diode product range provides distinct advantages over some of our competitors, such as:

Package Size: The Chip Diodes are *leadless*, allowing designers to make real estate savings on PCB layouts. Chip Diodes offer a lower profile and provide height savings over competing SOD80 (MiniMELF) product.

Environmental: All small signal diode terminations are *lead-free* with termination Cu/Ni/Au plating. Units meet many worldwide industry and government regulations on lead-free components.

Manufacturing Friendly: Chip Diodes allow the use of industry standard pick & place equipment. The Chip Diode package makes it easy to handle and the flat configuration makes rollaway difficult in production operations.

Kit Number	CD-LAB1	CD-LAB2	CD-LAB3	CD-LAB4
Kit Photo				
Description	Small Signal Switching & Schottky Barrier Diodes	Schottky Rectifier Diodes	Discrete TVS Diodes SMA Package	Discrete TVS Diodes SMB Package
Part Numbers	CD0603-B00340 CD0603-B0130L CD0603-B0140L CD0603-B0140R CD0603-B0230 CD0603-B0240 CD0603-S01575 CD0603-S0180 CD0603-S0180R CD1005-B00340 CD1005-B0130L CD1005-B0140L CD1005-B0140R CD1005-B0230 CD1005-B0240 CD1005-B0520 CD1005-S01575 CD1005-S0180 CD1005-S0180R CD1206-S01575	CD214A-B120LF CD214A-B130LF CD214A-B140LF CD214A-B150LF CD214A-B160LF CD214A-B170LF CD214A-B180LF CD214A-B1100LF CD214A-B220LF CD214A-B230LF CD214A-B240LF CD214A-B250LF CD214A-B260LF CD214A-B320LF CD214A-B330LF CD214A-B340LF CD214A-B350LF CD214A-B360LF CD1206-B220LF CD1206-B240LF CD1206-B260LF CD1206-B2100LF CD1607-B120LF CD1607-B120LLF CD1607-B140LF CD1607-B140LLF CD2010-B140LF CD2010-R160LF	SMAJ10A SMAJ10A SMAJ10CA SMAJ110A SMAJ12CA SMAJ130A SMAJ13A SMAJ14CA SMAJ15CA SMAJ170A SMAJ17CA SMAJ18CA SMAJ20CA SMAJ24A SMAJ24CA SMAJ26CA SMAJ30A SMAJ33CA SMAJ36A SMAJ36CA SMAJ43A SMAJ43A SMAJ5.0A SMAJ5.0CA SMAJ51CA SMAJ58CA SMAJ6.0A SMAJ6.5A SMAJ60CA	SMBJ10A SMBJ10CA SMBJ110CA SMBJ12CA SMBJ130A SMBJ13A SMBJ14CA SMBJ15CA SMBJ170A SMBJ17CA SMBJ18CA SMBJ20CA SMBJ24A SMBJ24CA SMBJ26CA SMBJ30A SMBJ33CA SMBJ36A SMBJ36CA SMBJ43A SMBJ5.0A SMBJ5.0CA SMBJ51CA SMBJ58CA SMBJ6.0A SMBJ6.5A SMBJ6.5CA SMBJ160A

		CD216A-B120RLF CD216A-B120LLF CD216A-B130LLF CD216A-B140LF	SMAJ7.5CA SMAJ85CA SMAJ9.0A SMAJ90CA	SMBJ7.5CA SMBJ85CA SMBJ9.0A SMBJ90CA
Kit Number	CD-LAB5	CD-LAB6	CD-LAB7	CD-LAB8
Kit Photo				
Description	Discrete TVS Diodes SMC Package	ESD Protection	Zener Diodes 0603 Package	Zener Diodes 1005 Package
Part Numbers	SMCJ10A SMCJ10CA SMCJ12CA SMCJ13A SMCJ14CA SMCJ15CA SMCJ170A SMCJ17CA SMCJ18CA SMCJ20CA SMCJ24A SMCJ24CA SMCJ30A SMCJ33CA SMCJ36A SMCJ43A SMCJ5.0A SMCJ5.0CA SMCJ51CA SMCJ58CA SMCJ6.0A SMCJ6.5A SMCJ6.5CA SMCJ60A SMLJ16A SMLJ20A SMLJ20CA SMLJ64CA SMCJ85CA SMCJ9.0A SMCJ90CA SMCJ170CA	CG0402MLU-3.3G CG0402MLC-3.3LG CG0603MLU-3.3E CG0603MLC-3.3LE CDSOT563-T05C CDSOD323-T03C CDSOT23-SRV05-4 CDSC706-0504F CG0402MLU-05G CG0402MLC-05LG CG0603MLU-05E CG0603MLC-05LE CDSOT23-SR208 CDSOD323-T05C CDSOT23-T03C CDSOT23-T05C CG1206MLC-05E CG0603MLU-12E CG0603MLC-12LE CG0603MLU-24E CD143A-SR70 CDSOD323-T12C CDSOT236-T05C CDSC706-T05C CDDFN2-T4.7C CDDFN4-T05 CDDFN8-T05 CDDFN10-3304N CD143A-SR2.8 CD143A-SR3.3 CD143A-SR05 CD143A-SR12	CD0603-Z2 CD0603-Z2V2 CD0603-Z2V4 CD0603-Z2V7 CD0603-Z3 CD0603-Z3V3 CD0603-Z3V6 CD0603-Z3V9 CD0603-Z4V3 CD0603-Z4V7 CD0603-Z5V1 CD0603-Z5V6 CD0603-Z6V2 CD0603-Z6V8 CD0603-Z7V5 CD0603-Z8V2 CD0603-Z9V1 CD0603-Z10 CD0603-Z11 CD0603-Z12 CD0603-Z13 CD0603-Z15 CD0603-Z16 CD0603-Z18 CD0603-Z20 CD0603-Z22 CD0603-Z24 CD0603-Z27 CD0603-Z30 CD0603-Z33 CD0603-Z36 CD0603-Z39	CD1005-Z2 CD1005-Z2V2 CD1005-Z2V4 CD1005-Z2V7 CD1005-Z3 CD1005-Z3V3 CD1005-Z3V6 CD1005-Z3V9 CD1005-Z4V3 CD1005-Z4V7 CD1005-Z5V1 CD1005-Z5V6 CD1005-Z6V2 CD1005-Z6V8 CD1005-Z7V5 CD1005-Z8V2 CD1005-Z9V1 CD1005-Z10 CD1005-Z11 CD1005-Z12 CD1005-Z13 CD1005-Z15 CD1005-Z16 CD1005-Z18 CD1005-Z20 CD1005-Z22 CD1005-Z24 CD1005-Z27 CD1005-Z30 CD1005-Z33 CD1005-Z36 CD1005-Z39