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Design Kits - 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 Model 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, are easy to handle with standard pick and place equipment and their flat configuration minimizes roll away.

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 their flat configuration minimizes roll away during production operations.

In order to obtain a Bourns® Design Kit please contact your local [Bourns sales office](#) or [authorized Bourns distributor](#).

Kit Number	Kit Photo	Description	Part Numbers
CD-LAB2		Rectifier Diodes	CD0603-B0340R CD1206-B210Q CD1206-B260 CD1408-FF1150Q CD1408-FF1100Q CD1408-FI100D CD1408-FU180Q CD1408-FU160Q CD1408-FU140Q CD1408-FU120Q CD123D-B140LR CD214A-B360R CD214A-B340LR CD214A-B1100R CD214A-B160R CD214A-B140LR CD214B-F53K CD214B-F53J CD214B-F53G CD214B-F53D CD214B-B360R CD214B-B340R CD-MBL210SL CD-HD201L CD-HD2006L CD214C-S31M CD214C-F53J CD214C-F53G CD214C-F53D CD214C-B3100R CD214C-B340R CD-DF4105L
CD-LAB3		Discrete TVS Diodes SMA Package	SMAI10A SMAI10CA SMAI110A SMAI12CA SMAI130A SMAI13A SMAI14CA SMAI15CA SMAI170A SMAI17CA SMAI18CA SMAI20CA SMAI24A SMAI24CA SMAI26CA SMAI30A SMAI33CA SMAI36A SMAI36CA SMAI43A SMAI5.0A SMAI5.0CA SMAI51CA SMAI58CA SMAI6.0A SMAI6.5A SMAI6.5CA SMAI60A SMAI7.5CA SMAI8.5CA SMAI9.0A SMAI90CA
CD-LAB4		Discrete TVS Diodes SMB Package	SMBI10A SMBI10CA SMBI110CA SMBI12CA SMBI130A SMBI13A SMBI14CA SMBI15CA SMBI170A SMBI17CA SMBI18CA SMBI20CA SMBI24A SMBI24CA SMBI26CA SMBI30A SMBI33CA SMBI36A SMBI36CA SMBI43A SMBI5.0A SMBI5.0CA SMBI51CA SMBI58CA SMBI6.0A SMBI6.5A SMBI6.5CA SMBI60A SMBI7.5CA SMBI8.5CA SMBI9.0A SMBI90CA
CD-LAB5		Discrete TVS Diodes SMC Package	SMCI10A SMCI10CA SMCI12CA SMCI13A SMCI14CA SMCI15CA SMCI170A SMCI17CA SMCI18CA SMCI20CA SMCI24A SMCI24CA SMCI30A SMCI33CA SMCI36A SMCI43A SMCI5.0A SMCI5.0CA SMCI51CA SMCI58CA SMCI6.0A SMCI6.5A SMCI6.5CA SMCI60A SMI16A SMI120A SMI120CA SMI164CA SMCI85CA SMCI9.0A SMCI90CA SMCI170CA
CD-LAB6		ESD Protection	CD0201-T20C CG0402MLU-3.3G CG0402MLC-3.3LG CG0603MLC-3.3E CG0603MLC-3.3LE CDS0323-T03C CDS0723-SRV05-4 CG0402MLU-05G CG0402MLC-05LG CG0603MLU-05E CG0603MLC-05LE CDS0723-SR208 CDS0D323-T05C CDS0T23-T03C CDS0T23-T05C CG0603MLU-12E CG0603MLC-12LE CG0603MLU-24E CD143A-SR70 CDS0D323-T12C CDS0T236-T05C CDDFN2-T3-3B CDDFN2-T5-0LC CDDFN10-3304NA CD143A-SR2.8 CD143A-SR3.3 CD143A-SR05 CD143A-SR12
CD-LAB9		Discrete 3 kW TVS Diodes SMC Package	SMLI6.5A SMLI10CA SMLI13A SMLI15A SMLI15CA SMLI16A SMLI17A SMLI20A SMLI20CA SMLI24A SMLI24CA SMLI26A SMLI26CA SMLI28CA SMLI30A SMLI30CA SMLI33A SMLI33CA SMLI36CA SMLI40A SMLI45A SMLI48A SMLI48CA SMLI51CA SMLI58A SMLI58CA SMLI64CA SMLI70CA SMLI85CA SMLI150CA
CD-LAB10		Discrete 5 kW TVS Diodes SMC Package	5.05MDJ10A 5.05MDJ10CA 5.05MDJ11A 5.05MDJ11CA 5.05MDJ12A 5.05MDJ12CA 5.05MDJ13CA 5.05MDJ14CA 5.05MDJ15A 5.05MDJ15CA 5.05MDJ16CA 5.05MDJ20A 5.05MDJ20CA 5.05MDJ24A 5.05MDJ24CA 5.05MDJ26CA 5.05MDJ28A 5.05MDJ28CA 5.05MDJ30A 5.05MDJ30CA 5.05MDJ33A 5.05MDJ33CA 5.05MDJ36A 5.05MDJ36CA 5.05MDJ40A 5.05MDJ40CA 5.05MDJ45A 5.05MDJ45CA 5.05MDJ48A 5.05MDJ48CA 5.05MDJ58A 5.05MDJ64A
CD-LAB11		AEC-Q101 Compliant TVS Diodes	SMAI17A-Q SMAI20A-Q SMAI24A-Q SMAI28A-Q SMBI17A-Q SMBI20A-Q SMBI24A-Q SMBI28A-Q SMBI33A-Q SMCI17A-Q SMCI24A-Q SMCI28A-Q SMCI33A-Q SMLI17A-Q SMLI20A-Q SMLI24A-Q SMLI28A-Q SMLI33A-Q SMLI36A-Q 5.05MDJ17A-Q 5.05MDJ20A-Q 5.05MDJ24A-Q 5.05MDJ28A-Q 5.05MDJ33A-Q 5.05MDJ36A-Q SM8SF24A-Q SM8SF33A-Q SM8SF36A-Q SM8SF24A-Q SM8S33A-Q SM8S36A-Q

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