

## CDBD1040-G Thru. CDBD10200-G

Reverse Voltage: 40 to 200 Volts

Forward Current: 10.0 Amp

RoHS Device

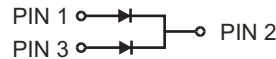
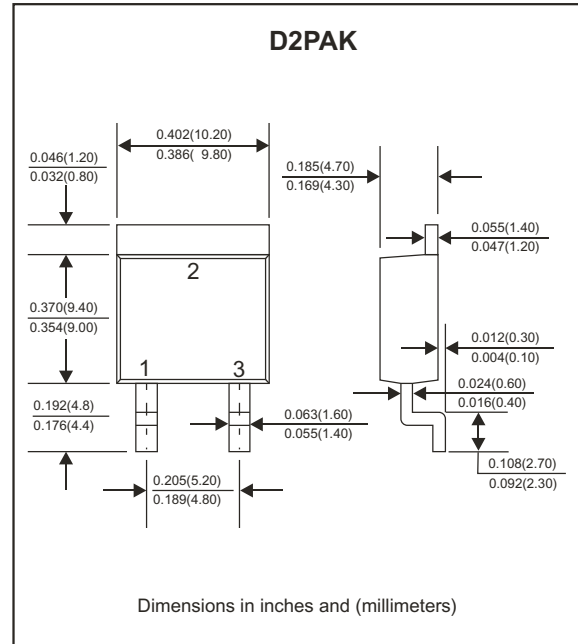


### Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guarding for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free part meets environmental standards of MIL-STD-19500 /228

### Mechanical data

- Case: TO-263/D2PAK, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weunting Position: Any
- Weight: 1.46 gram(approx.).



### Maximum Ratings (At Ta=25°C, unless otherwise noted)

Parameter	Symbol	CDBD 1040-G	CDBD 1060-G	CDBD 10100-G	CDBD 10150-G	CDBD 10200-G	Unit	
Repetitive peak reverse voltage	$V_{RRM}$	40	60	100	150	200	V	
Continuous reverse voltage	$V_R$	40	60	100	150	200	V	
RMS voltage	$V_{RMS}$	28	42	70	105	140	V	
Maximum forward rectified current (See fig. 1)	$I_O$	10.0					A	
Maximum forward voltage $I_F=5.0A$	$V_F$	0.55	0.75	0.85	0.90	0.92	V	
Maxium forward surge current, 8.3ms singlehalf sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	150					A	
Maximum reverse current	$V_R=V_{RRM}$ $T_A=25^{\circ}C$	$I_R$					0.5	mA
	$V_R=V_{RRM}$ $T_A=100^{\circ}C$	$I_R$					50	mA
Typical thermal resistance	Junction to Case	$R_{\theta Jc}$					3.0	$^{\circ}C/W$
Typical diode junction capacitance (Note1)	$C_J$						380	pF
Operating temperature	$T_J$	-55 to +125					-55 to +150	$^{\circ}C$
Storage temperature	$T_{STG}$						-65 to +175	$^{\circ}C$

Note: 1. f=1MHz and applied 4V DC reverse voltage

Company reserves the right to improve product design , functions and reliability without notice.

REV:B

## RATING AND CHARACTERISTIC CURVES (CDBD1040-G Thru. CDBD10200-G)

FIG.1- Typical forward current deating curve

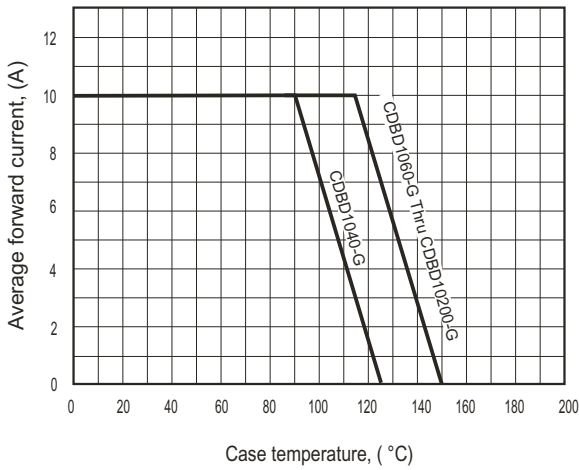


FIG.2- Typical forward characteristics

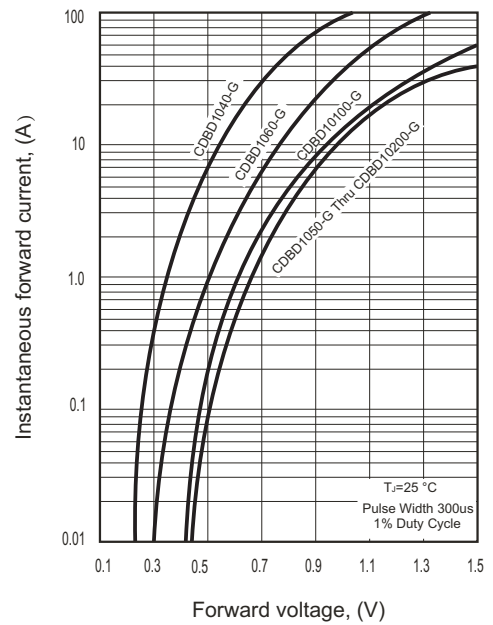


FIG.3- Maximum Non-repetitive forward surge current

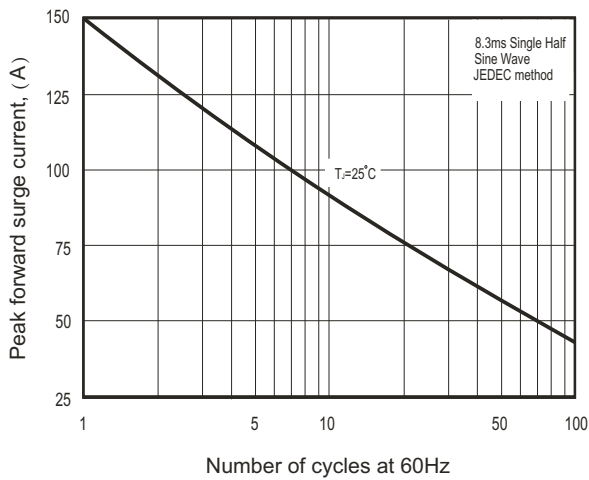


FIG.4 - Typical reverse characteristics

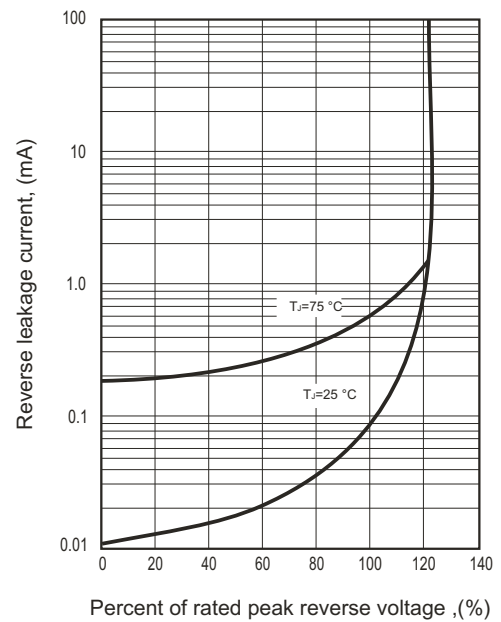
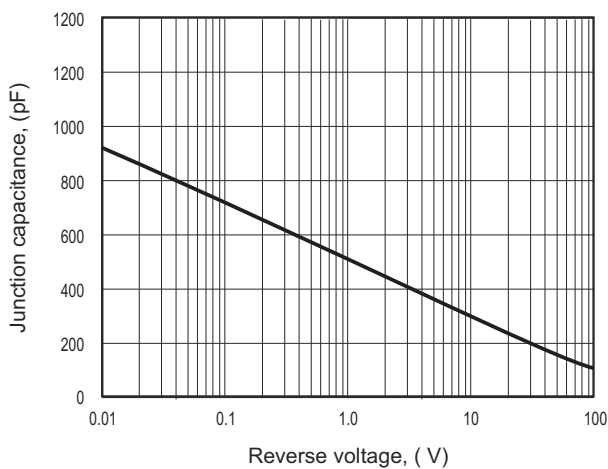
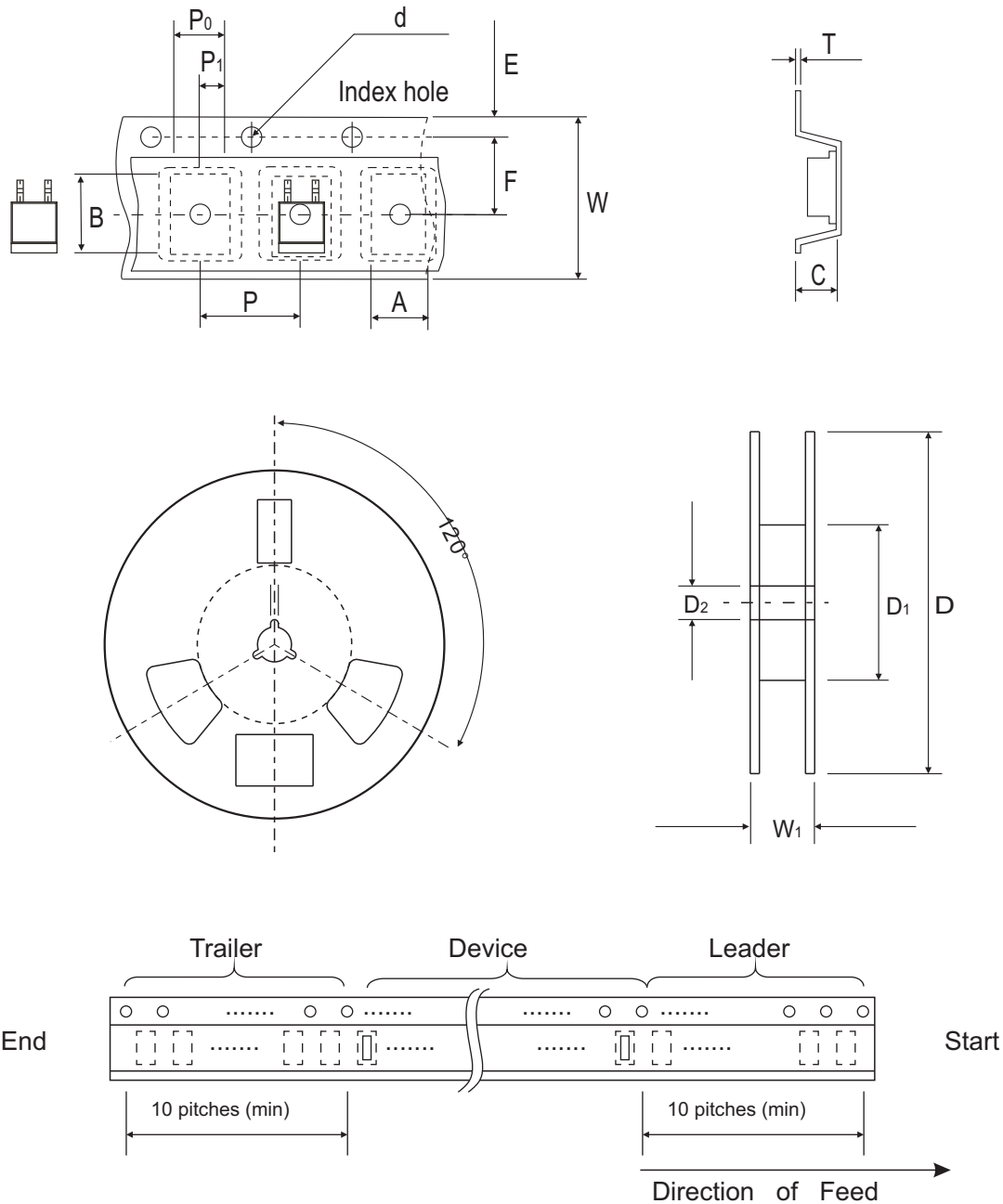


FIG.5- Typical junction capacitance



## Reel Taping Specification

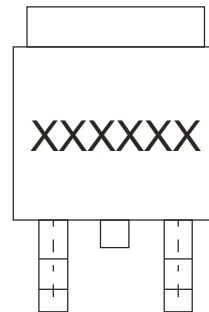


TO-263/D2PAK	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	10.70 ± 0.10	16.30 ± 0.10	5.10 ± 0.10	1.50 ± 0.10	330.00 ± 2.00	50.0 MIN.	13.0 ± 0.50
	(inch)	0.421 ± 0.004	0.642 ± 0.004	0.201 ± 0.004	0.059 ± 0.004	13.00 ± 0.079	1.969 MIN.	0.512 ± 0.020

TO-263/D2PAK	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	11.50 ± 0.10	16.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.10	24.00 ± 0.30	30.00 ± 1.0
	(inch)	0.069 ± 0.004	0.453 ± 0.004	0.630 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.004	0.945 ± 0.012	1.181 ± 0.039

## Marking Code

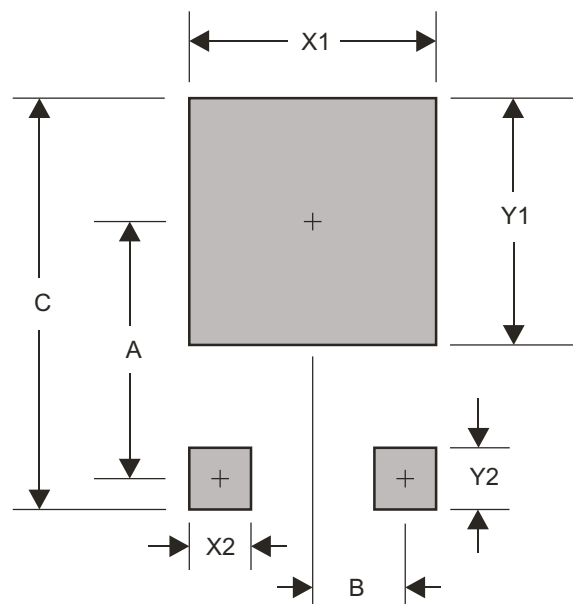
Part Number	Marking Code
CDBD1040-G	SK1040
CDBD1060-G	SK1060
CDBD10100-G	SK10100
CDBD10150-G	SK10150
CDBD10200-G	SK10200



XXXXXX / XXXXXXXX = Product type marking code

## Suggested PAD Layout

SIZE	TO-263 / D2PAK	
	(mm)	(inch)
A	9.50	0.374
B	2.50	0.098
C	16.90	0.665
X1	10.80	0.425
X2	1.10	0.043
Y1	11.40	0.449
Y2	3.50	0.138



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
TO-263/D2PAK	800	13