CDBD2020-G Thru. CDBD20200-G

Reverse Voltage: 20 to 200 Volts
Forward Current: 20.0 Amp
RoHS Device



Features

-Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.

-Low profile surface mounted application in order to optimize board space.

-Low power loss, high efficiency.

-High current capability, low forward voltage drop.

-High surge capability.

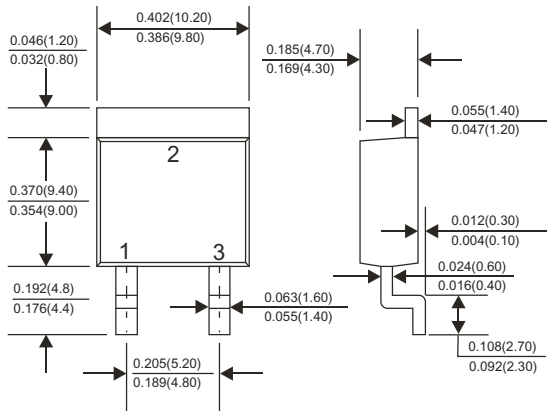
-Guardring for overvoltage protection.

-Ultra high-speed switching.

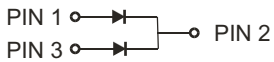
-Silicon epitaxial planar chip, metal silicon junction.

-Lead-free parts meet environmental standards of MIL-STD-19500 /228

D2PAK



Dimensions in inches and (millimeters)



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 2020-G	CDBD 2030-G	CDBD 2040-G	CDBD 2045-G	CDBD 2050-G	CDBD 2060-G	CDBD 2080-G	CDBD 20100-G	CDBD 20150-G	CDBD 20200-G	Unit
Repetitive peak reverse voltage		V_{RRM}	20	30	40	45	50	60	80	100	150	200	V
Continuous reverse voltage		V_R	20	30	40	45	50	60	80	100	150	200	V
RMS voltage		V_{RMS}	14	21	28	31.5	35	42	56	70	105	140	V
Maximum Forward rectified current (See fig. 1)		I_O	20.0										A
Maximum forward voltage I_F=10.0A		V_F	0.55				0.75		0.85		1.00		V
Maxium Forward surge current, 8.3ms singlehalf sine-wave superimposed on rate load (JEDEC method)		I_{FSM}	150										A
MaximumReverse current	V_R=V_{RRM} T_A=25°C	I_R	0.5										mA
	V_R=V_{RRM} T_A=100°C	I_R	50										mA
Typ.Thermal resistance	Junction to Case	$R_{\theta Jc}$	2.0										°C/W
Operating temperature		T_J	-55 to +125				-55 to +150						°C
Storage temperature		T_{STG}	-65 to +175										°C

RATING AND CHARACTERISTIC CURVES (CDBD2020-G Thru. CDBD20200-G)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

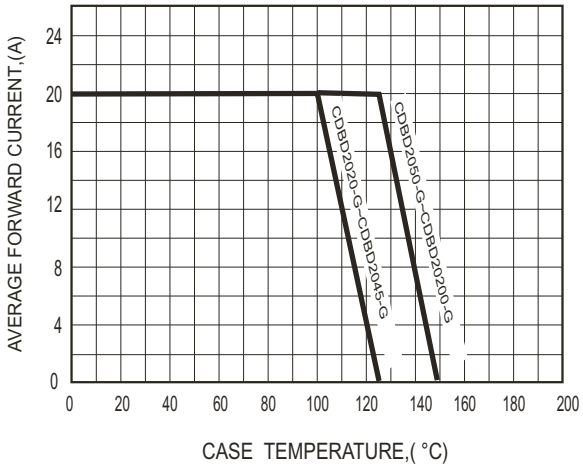


FIG.2-TYPICAL FORWARD CHARACTERISTICS

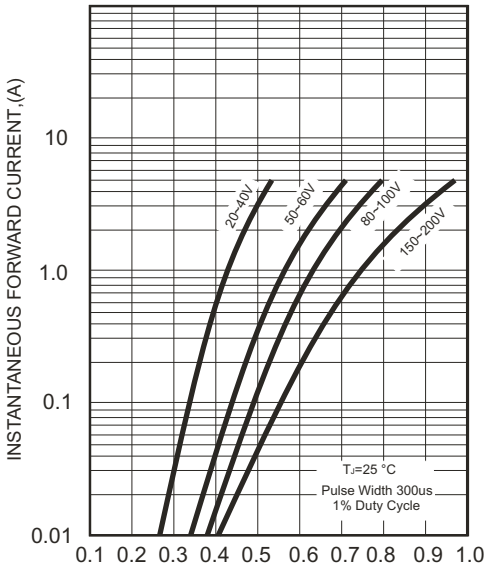


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

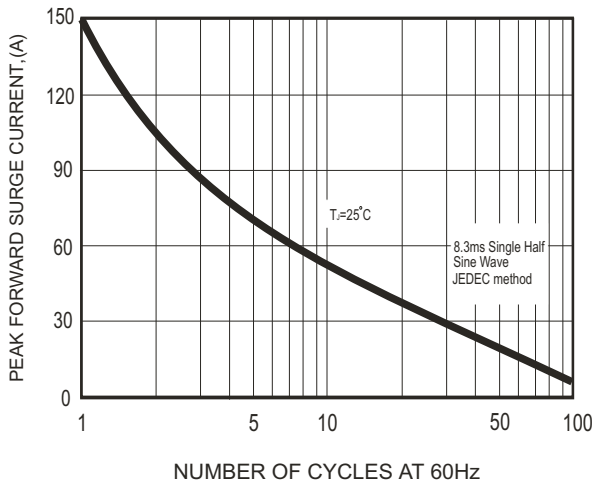
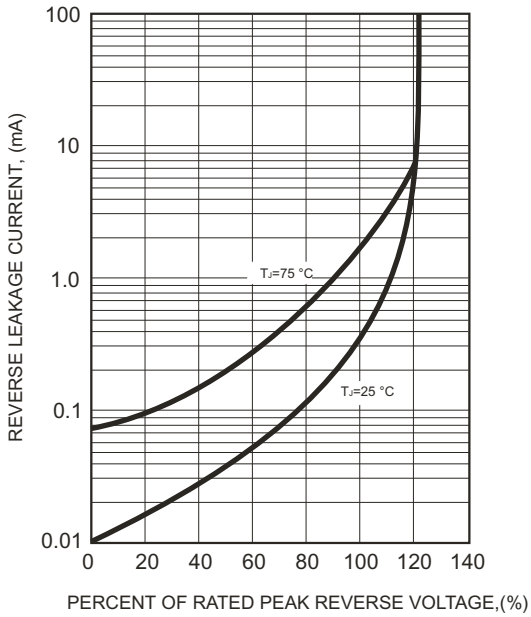
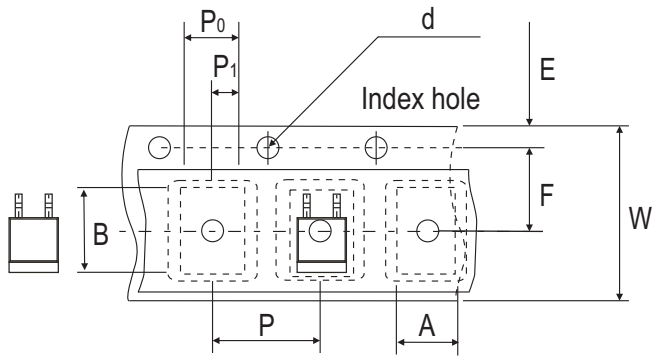
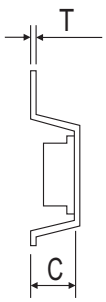


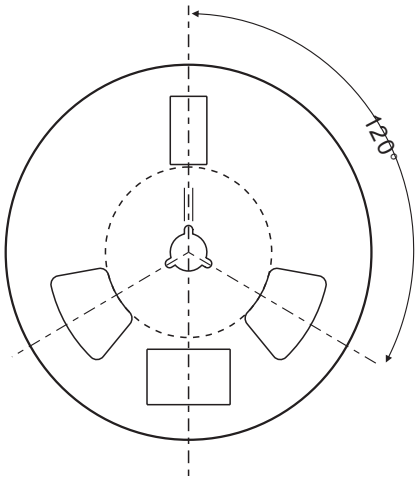
FIG.4 - TYPICAL REVERSE CHARACTERISTICS

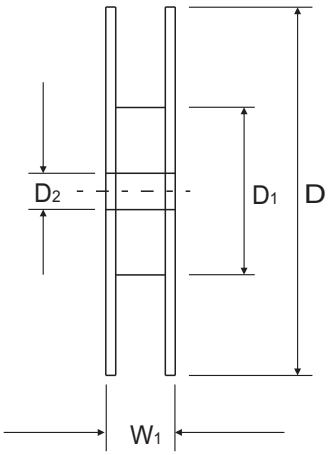


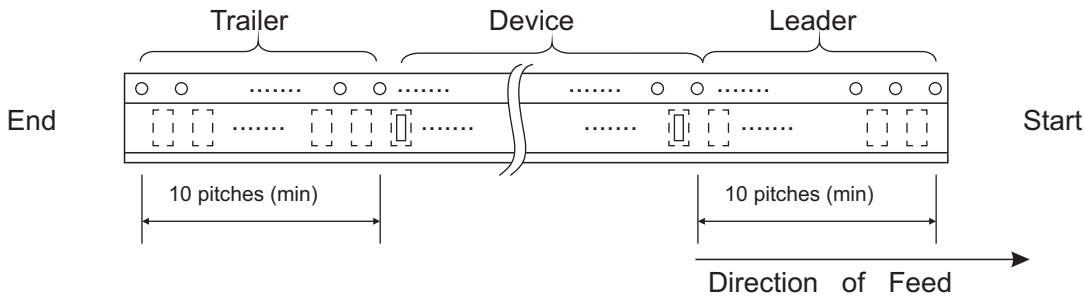
Reel Taping Specification









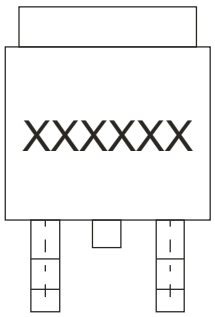


	SYMBOL	A	B	C	d	D	D1	D2
TO-263/D2PAK	(mm)	10.70 ± 0.10	16.30 ± 0.10	5.10 ± 0.10	1.50 ± 0.10	330.00 ± 2.00	50.0 MIN.	13.0 ± 0.50
	(inch)	0.421 ± 0.004	0.642 ± 0.004	0.201 ± 0.004	0.059 ± 0.004	13.00 ± 0.079	1.969 MIN.	0.512 ± 0.020

	SYMBOL	E	F	P	P0	P1	T	W	W1
TO-263/D2PAK	(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

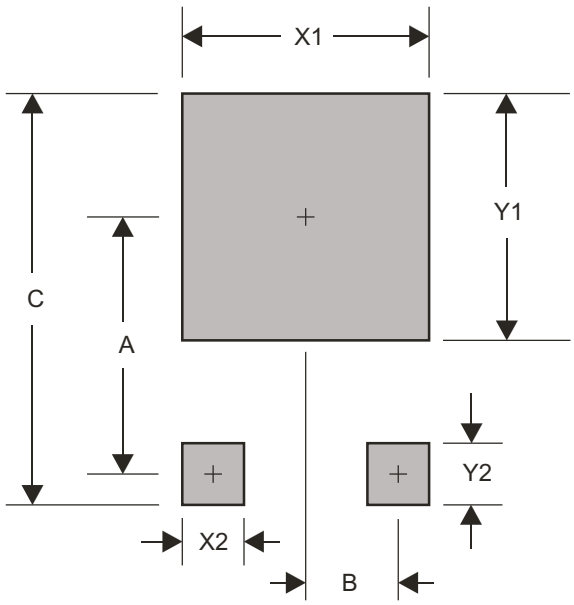
Part Number	Marking Code
CDBD2020-G	SK2020
CDBD2030-G	SK2030
CDBD2040-G	SK2040
CDBD2045-G	SK2045
CDBD2050-G	SK2050
CDBD2060-G	SK2060
CDBD2080-G	SK2080
CDBD20100-G	SK20100
CDBD20150-G	SK20150
CDBD20200-G	SK20200



XXXXXX / XXXXXXX = 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