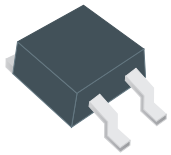
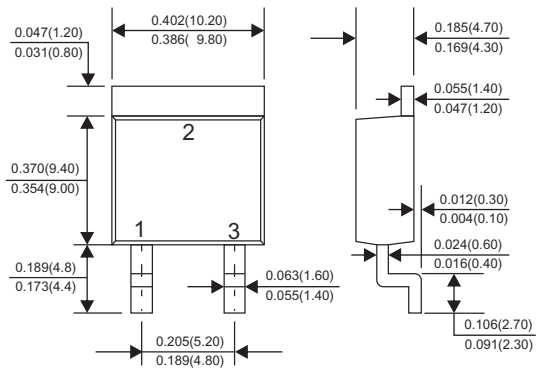
Chip Schottky Barrier Rectifier

CDBD3060-G

Reverse Voltage: 60 Volts
Forward Current: 30 Amp
RoHS Device



D2PAK



Dimensions in inches and (millimeters)

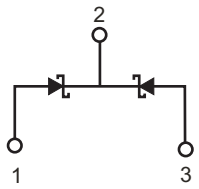
Features

- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guard ring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case: TO-263/D2PAK, molded plastic.
- Terminals: Solder plated, Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position: Any
- Weight:1.46 grams (approx.).

Circuit Diagram



Maximum Ratings (at T_A=25°C, unless otherwise noted)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Repetitive peak reverse voltage		V_{RRM}			60	V
Continuous reverse voltage		V_R			60	
RMS voltage		V_{RMS}			42	
Forward rectified current	See fig. 1	I_O			30	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			150	A
Typical thermal resistance	Junction to ambient	$R_{\theta JA}$		15		°C/W
	Junction to case	$R_{\theta JC}$		4.5		
Operating temperature range		T_J	-55	-	+150	°C
Storage temperature range		T_{STG}	-65		+175	°C

Electrical Characteristics (at T_A=25°C, unless otherwise noted)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Forward voltage	I_F = 15A	V_F			0.70	V
Reverse current	$V_R = V_{RRM}$, T_j = 25°C	I_R			0.5	mA
	$V_R = V_{RRM}$, T_j = 100°C				50	

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

RATING AND CHARACTERISTIC CURVES (CDBD3060-G)

Fig.1 - Typical Forward Current Dearting Curve

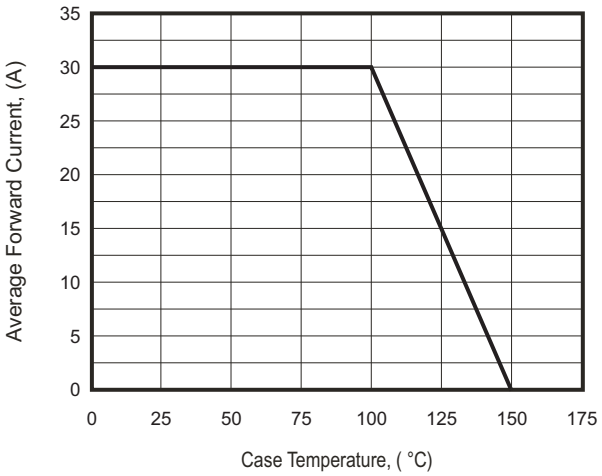


Fig.2 - Typical Forward Characteristics

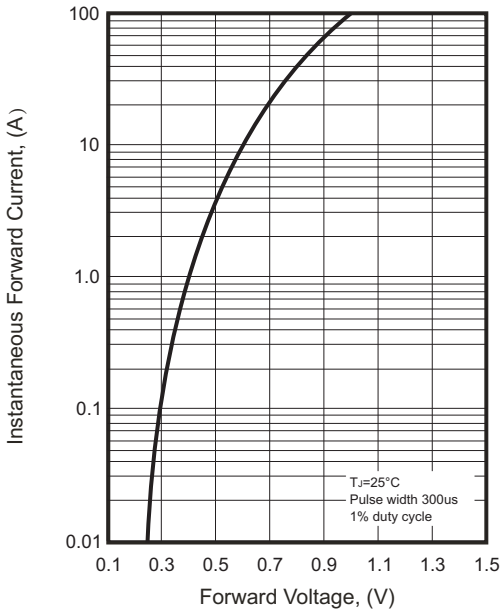


Fig.3 - Maximum Non-Repetitive Forward Surge Current

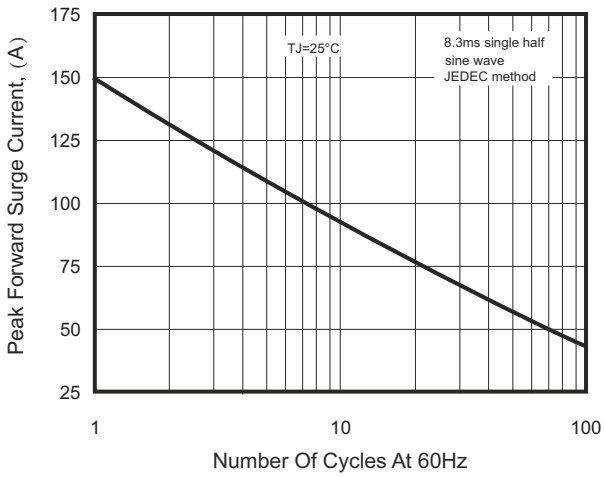
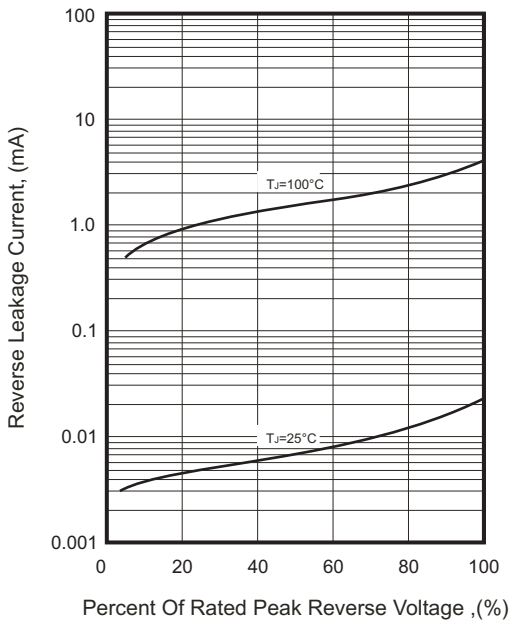
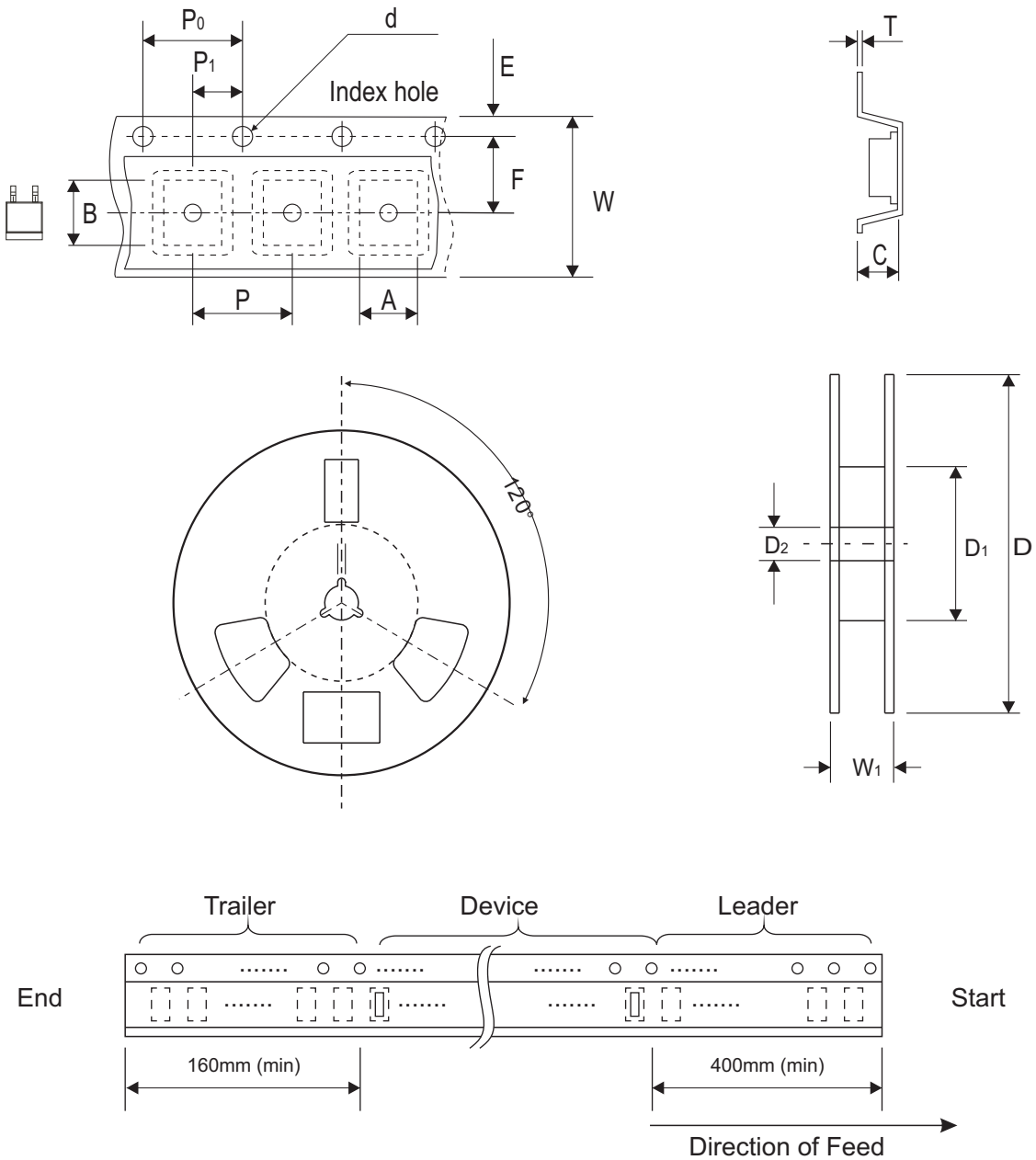


Fig.4 - Typical Reverse Characteristics



Reel Taping Specification

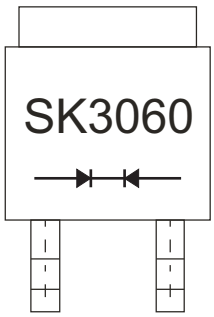


	SYMBOL	A	B	C	d	D	D_1	D_2
TO-263/D2PAK	(mm)	10.70 ± 0.10	16.30 ± 0.10	5.10 ± 0.10	1.50 ± 0.10	330.00 ± 2.00	50.0 MIN.	13.00 ± 0.50
	(inch)	0.421 ± 0.004	0.642 ± 0.004	0.201 ± 0.004	0.059 ± 0.004	12.992 ± 0.079	1.969 MIN.	0.512 ± 0.020

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
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

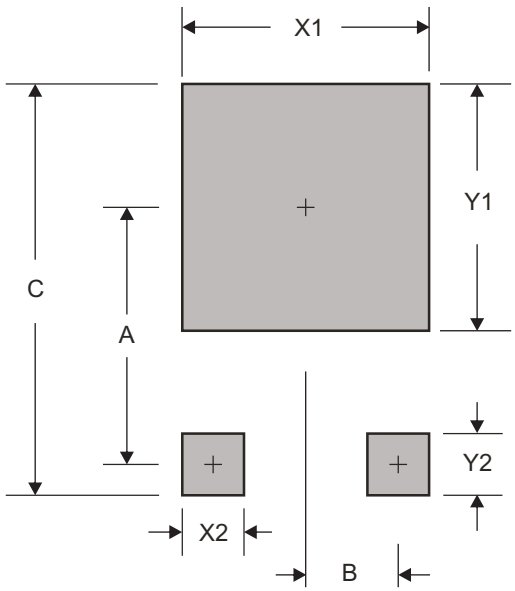
Marking Code

Part Number	Marking Code
CDBD3060-G	SK3060



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	1.80	0.071
Y1	11.40	0.449
Y2	3.50	0.138



Standard Packaging

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
TO-263 / D2PAK	800	13