

PD060120E2H / PD060120E2H_G

1200V Silicon Carbide Diode

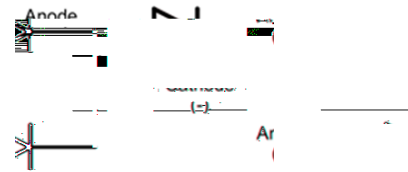
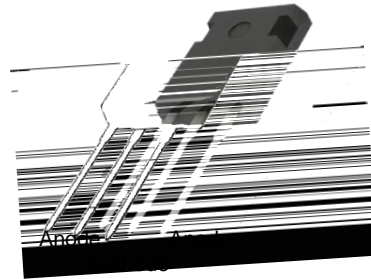
Features

- 1200-Volt Schottky Rectifier
- Shorter recovery time
- High-speed switching possible
- High-Frequency Operation
- Temperature-Independent Switching Behavior
- Extremely Fast Switching
- Positive Temperature Coefficient on VF
- RoHS Compliant

Applications

- Switch Mode Power Supplies
- Power Factor Correction
- Motor Drives
- HID Lighting

Package Outline



Absolute Maximum Ratings

Symbol	Parameter	Value	Units
V_{RRM}	Repetitive Peak Reverse Voltage	1200	V
V_{RSM}	Surge Peak Reverse Voltage	1200	V
V_{DC}	DC Blocking Voltage	1200	V
I_F	Continuous Forward Current	$T_C \quad 1 = 90 / 180$ $T_C \quad -1 = 30 / 60$	A
I_{FRM}	Repetitive Peak Forward Current	$T_C \quad -- = 200 / 400$	A
I_{FSM}	Non-Repetitive Forward Surge Current	$T_C \quad 1 = 150 / 300$ $T_C \quad -- = 120 / 240$	A
P_D	Power Dissipation	$T_C \quad 1 = 440 / 880$	W
T_J, T_{stg}	Operating Junction and Storage Temperature	-55 to +175	

* Per Leg / Per Device

Electrical Characteristics (Per Leg)T_C = 25 C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
V _F	Forward Voltage	I _F = 30A, T _C = 25 C I _F = 30A, T _C = 175°C	--	1.5 2.0	1.8 2.4	V
I _R	Reverse Current	V _R = 1200V T _C = 25°C V _R = 1200V T _C = 175°C	--	40 80	100 1000	uA
Q _C	Total Capacitive Charge	V _R = 800V	--	99	--	nC
C	Total Capacitance	V _R = 0V, T _J = 25°C, f = 1MHz V _R = 800V, T _J = 25°C, f = 1MHz	--	1925 124	--	pF

Thermal CharacteristicsT_C = 25 C unless otherwise noted

Symbol	Parameter	Min	Typ	Max	Units
R	Thermal Resistance, Junction-to-Case	--	0.34 / 0.17	0.41 / 0.21	W

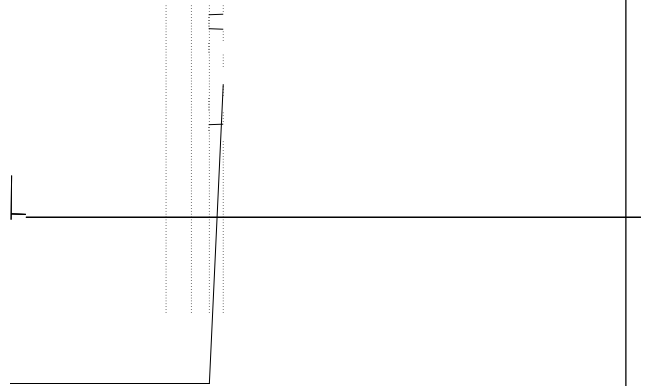
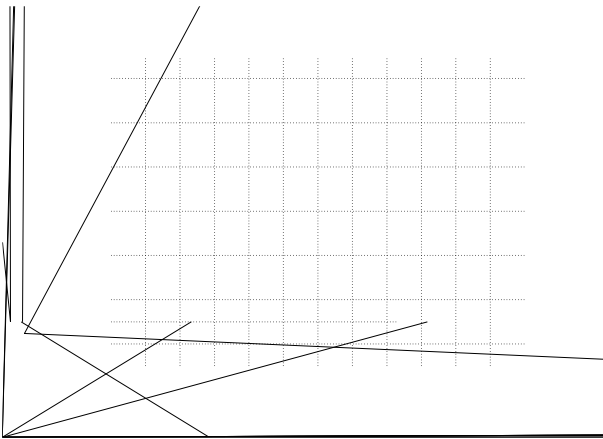
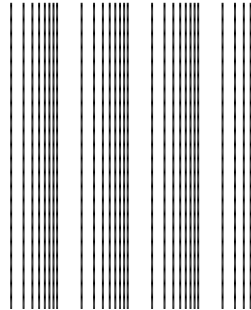
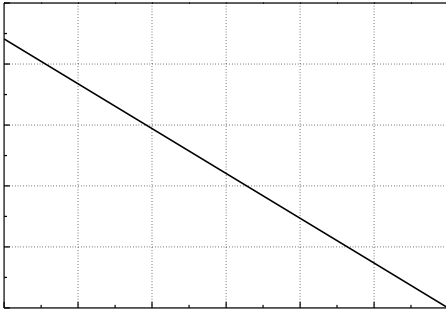
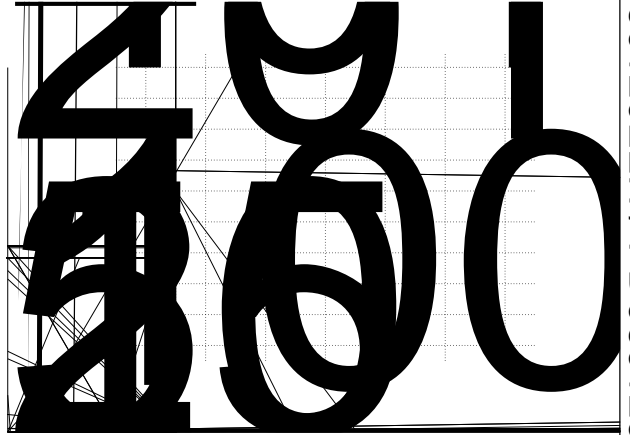
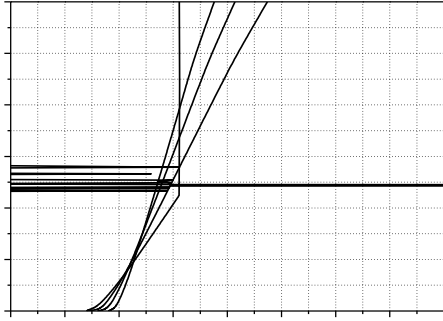
* Per Leg / Per Device

Package Marking and Ordering Information

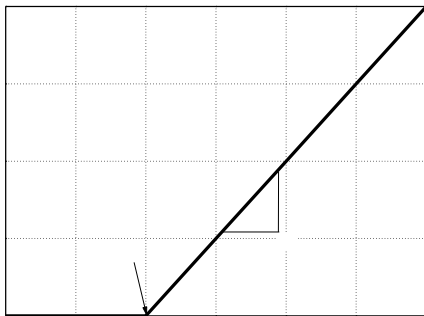
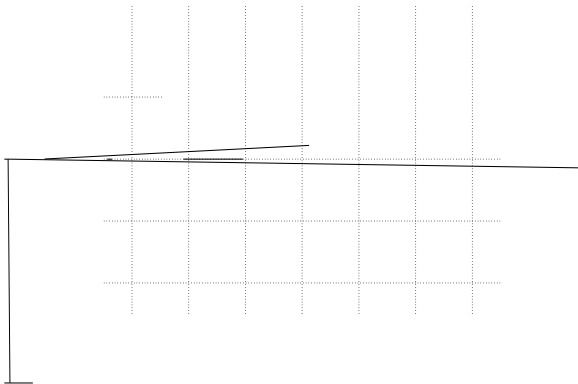
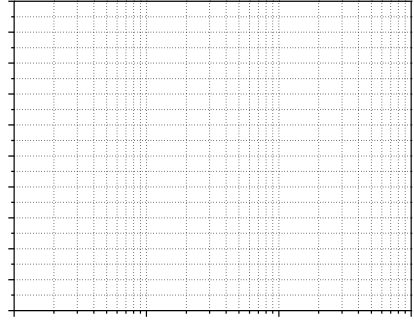
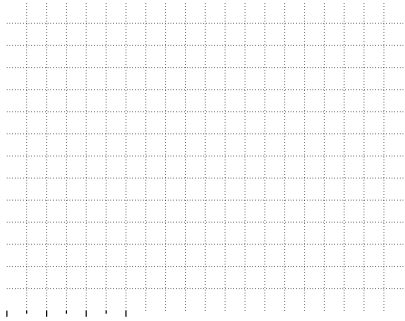
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
PD060120E2H	PD060120E2H	TO-247_3L	-	-	30
PD060120E2H_G	PD060120E2H_G	TO-247_3L	-	-	30

* PD060120E2H_G : RoHS Compliant

Typical Characteristics (Per Leg)

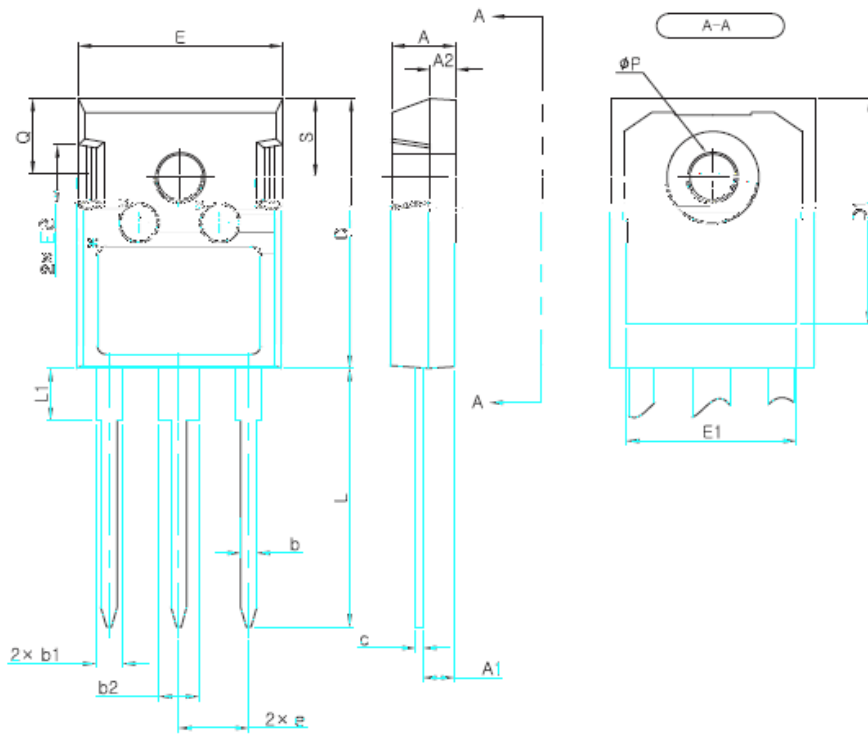


Typical Characteristics (Per Leg)



$$\begin{aligned}
 & B \quad) \quad - \quad 5 \\
 & C \quad ; \quad = \Omega \\
 & ; \quad 5 \quad - \quad)^3 \\
 & \quad 25 \quad - \quad)^1 \\
 & = \quad -32 \quad - \quad) \\
 & = \quad)11 = \quad -31 = C \quad -1 ;
 \end{aligned}$$

Package Information



SYMBOL	MIN	NOM	MAX
A	4.80	5.00	5.20
A1	2.29	2.41	2.54
A2	1.90	2.00	2.10
b	1.10	1.20	1.30
b1	1.91	2.10	2.20
b2	2.92	3.10	3.20
c	0.50	0.60	0.70
D	20.80	21.07	21.34
D1	17.43	17.63	17.83
E	15.75	15.94	16.13
E1	13.06	13.26	13.46

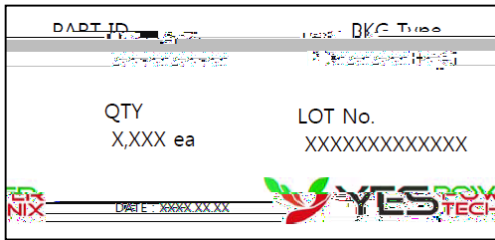
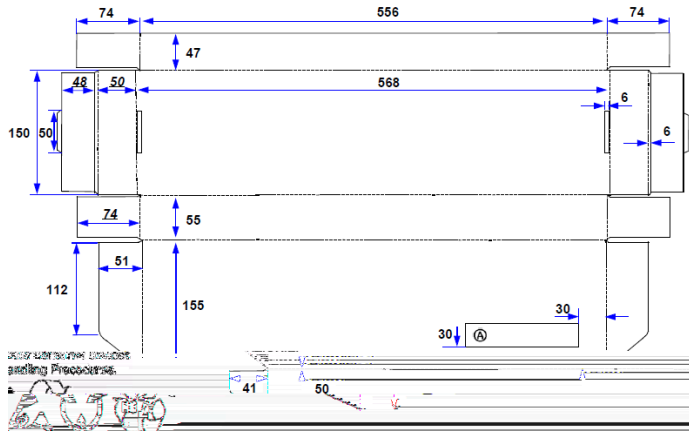
1	0.25	0.25	0.25
2	0.25	0.25	0.25
3	0.25	0.25	0.25
4	0.25	0.25	0.25
5	0.25	0.25	0.25
6	0.25	0.25	0.25
7	0.25	0.25	0.25
8	0.25	0.25	0.25
9	0.25	0.25	0.25
10	0.25	0.25	0.25
11	0.25	0.25	0.25
12	0.25	0.25	0.25
13	0.25	0.25	0.25
14	0.25	0.25	0.25
15	0.25	0.25	0.25
16	0.25	0.25	0.25
17	0.25	0.25	0.25
18	0.25	0.25	0.25
19	0.25	0.25	0.25
20	0.25	0.25	0.25
21	0.25	0.25	0.25
22	0.25	0.25	0.25
23	0.25	0.25	0.25
24	0.25	0.25	0.25
25	0.25	0.25	0.25
26	0.25	0.25	0.25
27	0.25	0.25	0.25
28	0.25	0.25	0.25
29	0.25	0.25	0.25
30	0.25	0.25	0.25
31	0.25	0.25	0.25
32	0.25	0.25	0.25
33	0.25	0.25	0.25
34	0.25	0.25	0.25
35	0.25	0.25	0.25
36	0.25	0.25	0.25
37	0.25	0.25	0.25
38	0.25	0.25	0.25
39	0.25	0.25	0.25
40	0.25	0.25	0.25
41	0.25	0.25	0.25
42	0.25	0.25	0.25
43	0.25	0.25	0.25
44	0.25	0.25	0.25
45	0.25	0.25	0.25
46	0.25	0.25	0.25
47	0.25	0.25	0.25
48	0.25	0.25	0.25
49	0.25	0.25	0.25
50	0.25	0.25	0.25

(NOTE)

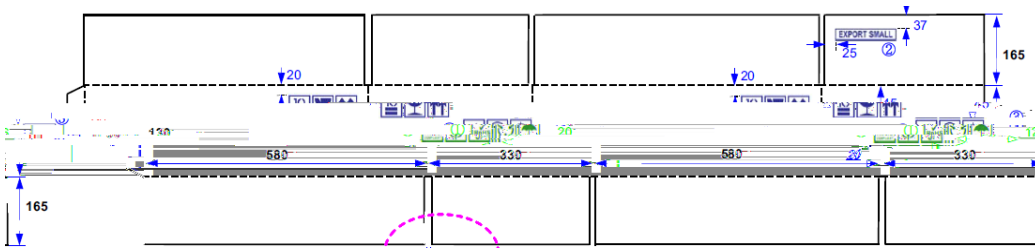
1. THESE DIMENSION DO NOT INCLU

Packing Information

Inner Box



Outer Box



[BOX PRINTING MARKING]

①

B175
JK175

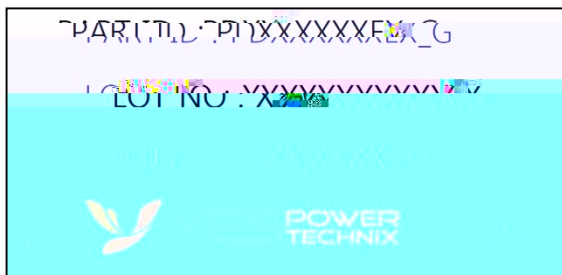
② EXPORT SMALL

MARKING SIZE : (112*70)
COLOR (DARK BLUE)

[NOTE]

1. MATERIAL : KLB175*K180*KLB175*K180*KL
(SUK175*K200*K200*K200*SI)

2. NAIL QTY : 3 PCS



Notes

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