

# PD030120E2H / PD030120E2H\_G

## 1200V Silicon Carbide Diode

### Features

- 1200

### 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 $T_C$ $T_C$	50 / 100 15 / 30	A
$I_{FRM}$	Repetitive Peak Forward Current $T_C$	120 / 240	A
$I_{FSM}$	Non-Repetitive Forward Surge Current $T_C$ $T_C$	75 / 150 60 / 120	A
$P_D$	Power Dissipation $T_C$	176 / 352	W
$T_J, T_{stg}$	Operating Junction and Storage Temperature	-55 to +175	

**Electrical Characteristics (Per Leg)**T<sub>C</sub> = 25 C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 15A, T <sub>C</sub> = 25 C I <sub>F</sub> = 15A, T <sub>C</sub> = 175°C	--	1.5 2.0	1.8 2.4	V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 1200V T <sub>C</sub> = 25°C V <sub>R</sub> = 1200V T <sub>C</sub> = 175°C	--	25 50	55 550	uA
Q <sub>C</sub>	Total Capacitive Charge	V <sub>R</sub> = 800V	--	99	--	nC
C	Total Capacitance	V <sub>R</sub> = 0V, T <sub>J</sub> = 25°C, f = 1MHz V <sub>R</sub> = 800V, T <sub>J</sub> = 25°C, f = 1MHz	--	1300 74	--	pF

**Thermal Characteristics**T<sub>C</sub> = 25 C unless otherwise noted

Symbol	Parameter	Min	Typ	Max	Units
R	Thermal Resistance, Junction-to-Case	--	0.85 / 0.43	1.02 / 0.51	W

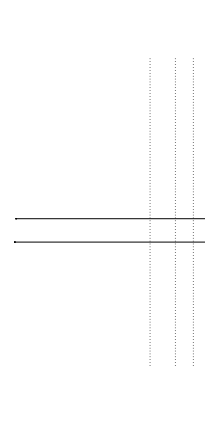
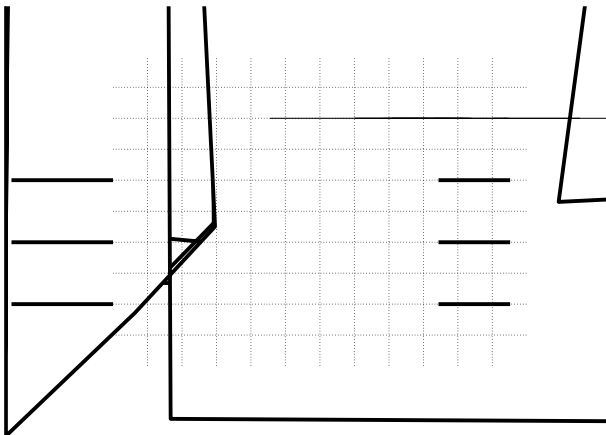
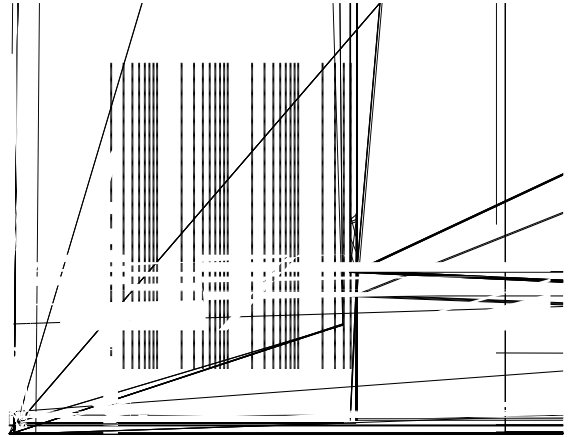
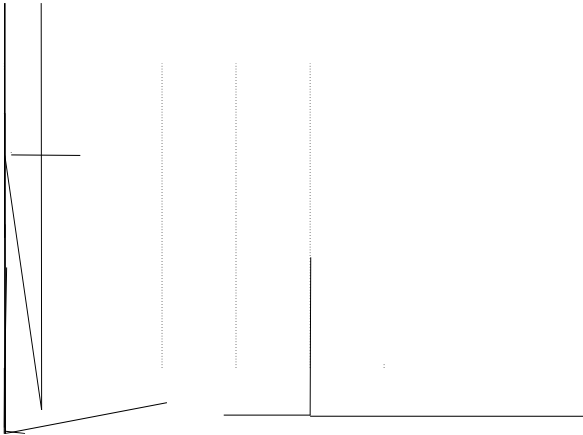
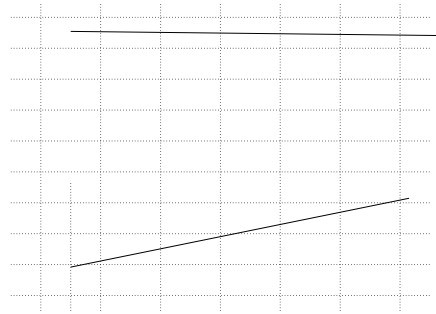
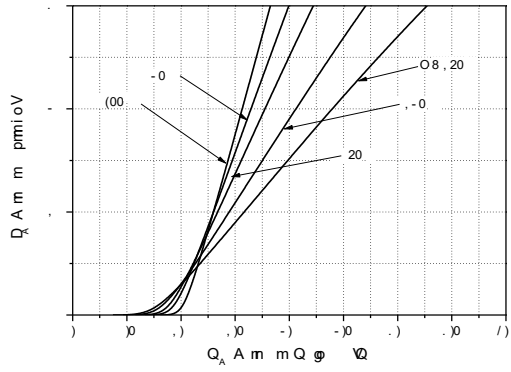
\* Per Leg / Per Device

**Package Marking and Ordering Information**

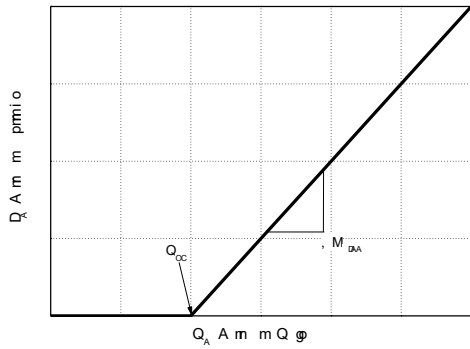
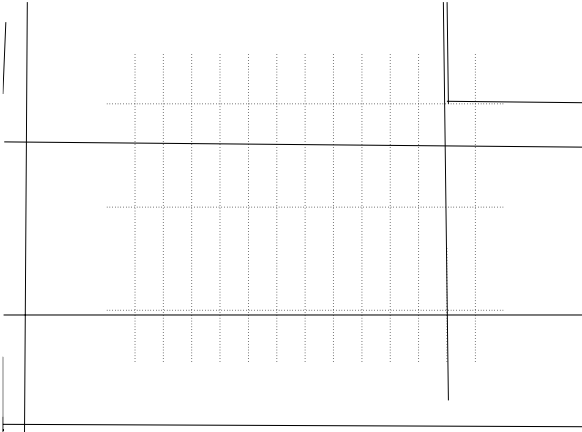
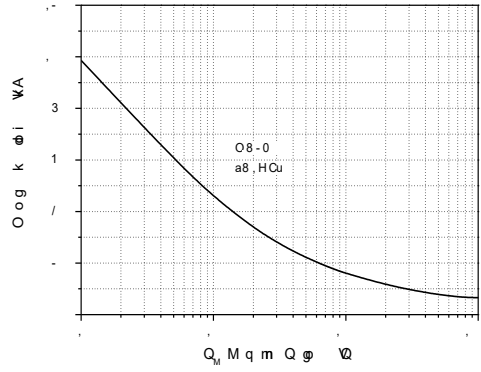
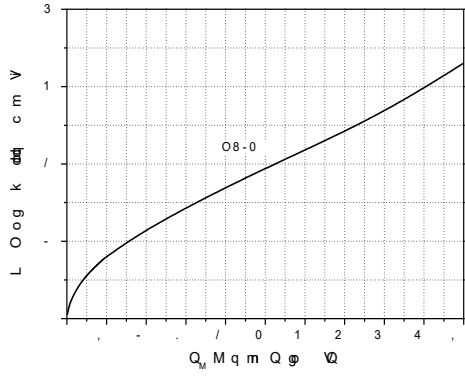
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
PD030120E2H	PD030120E2H	TO-247_3L	-	-	30
PD030120E2H_G	PD030120E2H_G	TO-247_3L	-	-	30

\* PD030120E2H\_G : RoHS Compliant

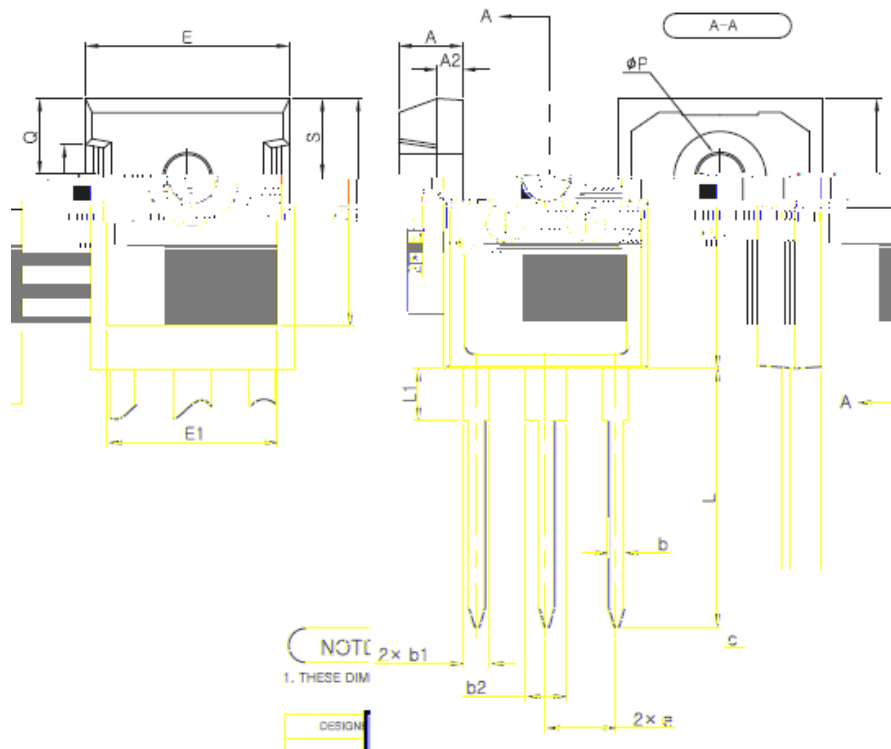
### Typical Characteristics (Per Leg)



### Typical Characteristics (Per Leg)



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

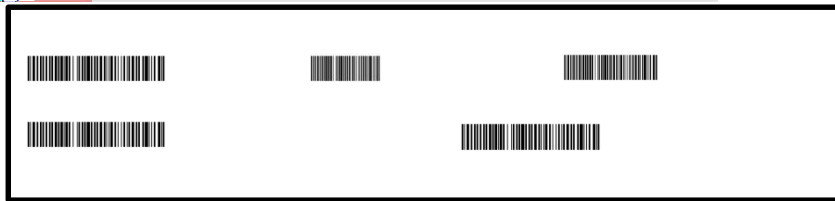
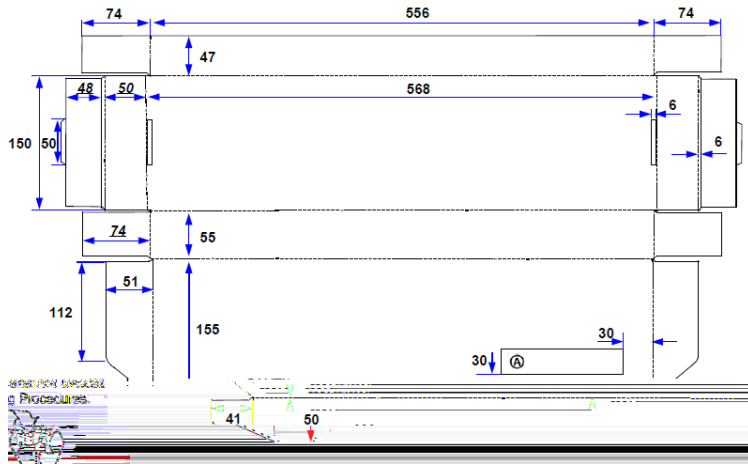


SYMBOL	MIN	NOM	MAX
φP	0.25	0.30	0.35
φP1	4.00	4.00	4.00
L	0.50	0.50	0.50
L1	1.00	1.00	1.00

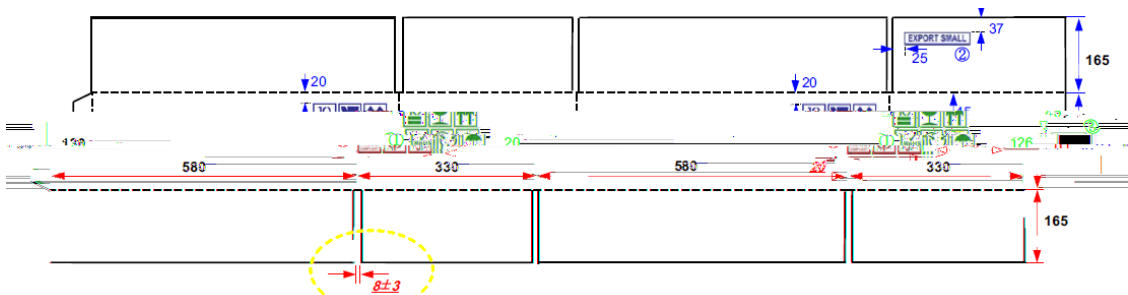
IT INCLUDE MOLD PROTRUSION

( NOTE )  
1. THESE DIMENSION DO NOT

## Package Information Inner Box



## Outer Box



[ PRINTING MARKING ]

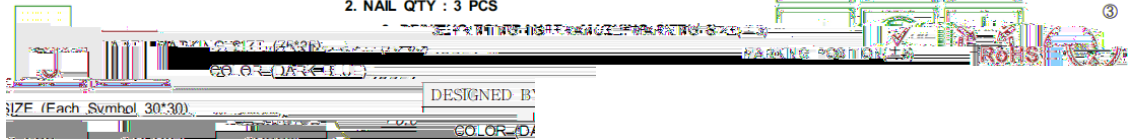
EXPORT SMALL  
 PRINTING SIZE (112\*20)  
 COLOR (DARK BLUE)

[ NOTE ]

- MATERIAL : KLB175\*K180\*KLB175\*K180\*KLB175...  
 (SUK175\*K200\*K200\*K200\*SUK175)
- NAIL QTY : 3 PCS

[ BOX ]

②  
 M4



## Notes

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