

# PD026065E2H / PD026065E2H\_G

## 650V Silicon Carbide Diode

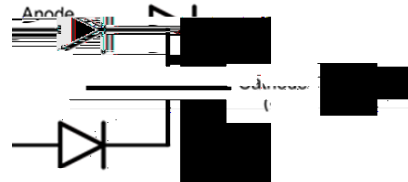
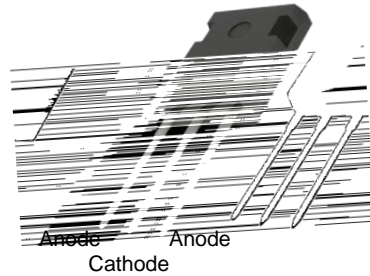
### Features

- 650-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	650	V
$V_{RSM}$	Surge Peak Reverse Voltage	650	V
$V_{DC}$	DC Blocking Voltage	650	V
$I_F$	Continuous Forward Current $T_C 3 (+)$ $T_C 3 (-)$	28 / 56 13 / 26	A
$I_{FRM}$	Repetitive Peak Forward Current $T_C 3$	67 / 130	A
$I_{FSM}$	Non-Repetitive Forward Surge Current (PW=10ms sinusoidal) $T_C 3 (+)$ $T_C 3 (-)$	65 / 130 52 / 104	A
$P_D$	Power Dissipation $T_C 3 (+)$	115 / 230	W
$T_J, T_{stg}$	Operating Junction and Storage Temperature	-55 to +175	

\* Per Leg / Per Device

**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> = 13A, T <sub>C</sub> = 25 C I <sub>F</sub> = 13A, 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> = 650V T <sub>C</sub> = 25°C V <sub>R</sub> = 650V T <sub>C</sub> = 175°C	--	23 46	49 490	uA
Q <sub>C</sub>	Total Capacitive Charge	V <sub>R</sub> = 400V	--	24	--	nC
C	Total Capacitance	V <sub>R</sub> = 1V, T <sub>J</sub> = 25°C, f = 1MHz V <sub>R</sub> = 520V, T <sub>J</sub> = 25°C, f = 1MHz	--	575 55	--	pF

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

Symbol	Parameter	Min	Typ	Max	Units
R <sub>JC</sub>	Thermal Resistance, Junction-to-Case	--	1.3 / 0.65	1.6 / 0.8	W

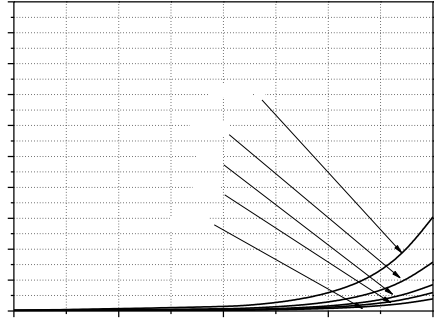
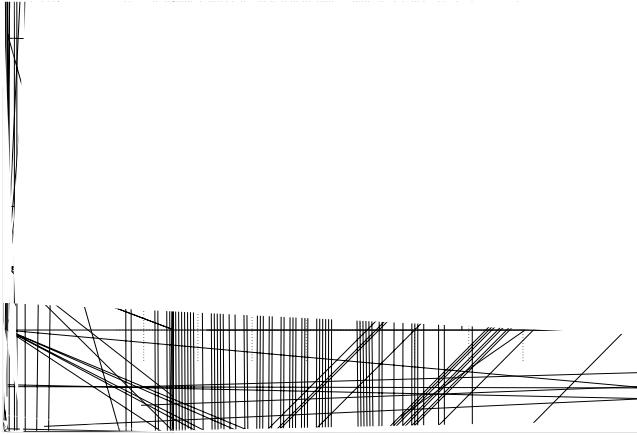
\* Per Leg / Per Device

**Package Marking and Ordering Information**

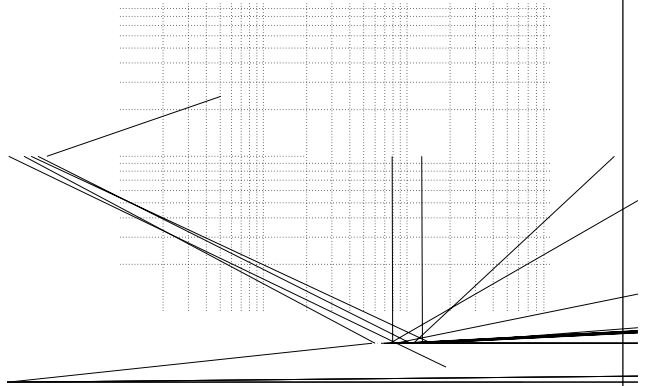
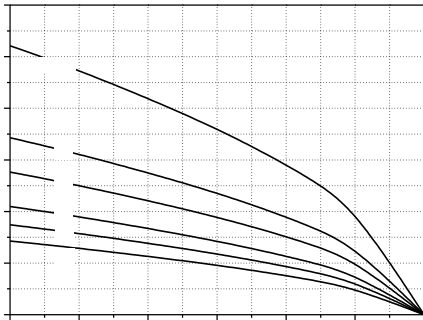
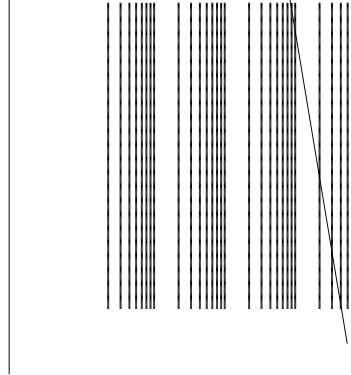
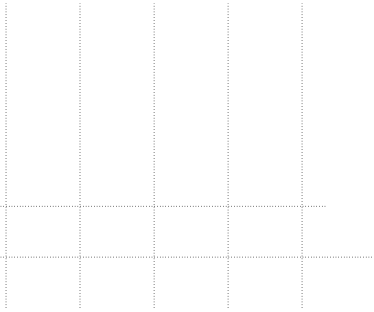
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
PD026065E2H	PD026065E2H	TO-247_3L	-	-	30
PD026065E2H_G	PD026065E2H_G	TO-247_3L	-	-	30

\* PD026065E2H\_G : RoHS Compliant

### Typical Characteristics (Per Leg)

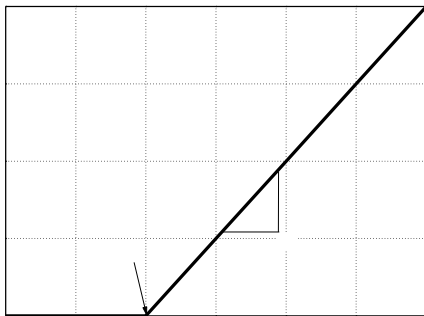
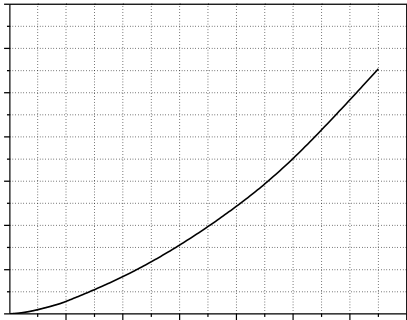
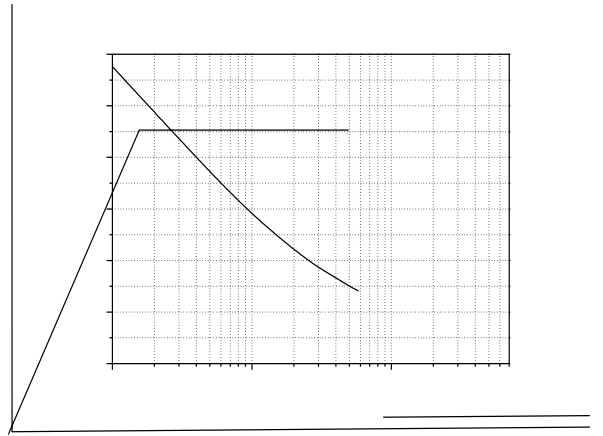


**Y**



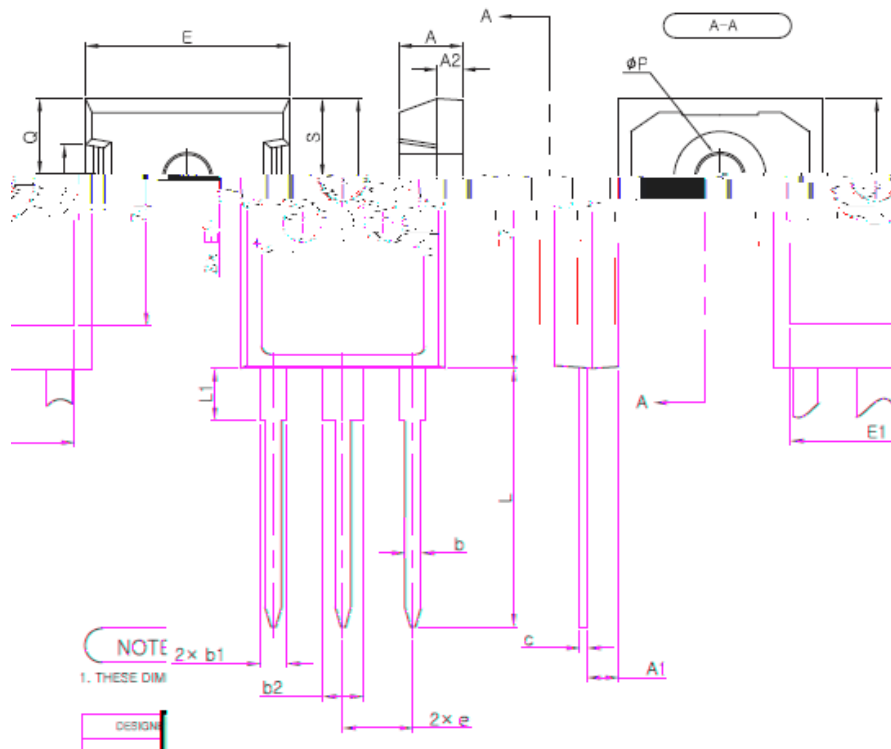
### Typical Characteristics (Per Leg)

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Package Information



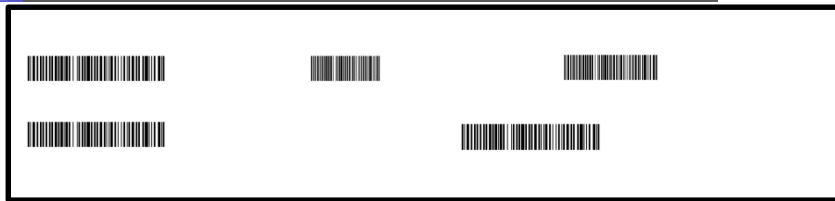
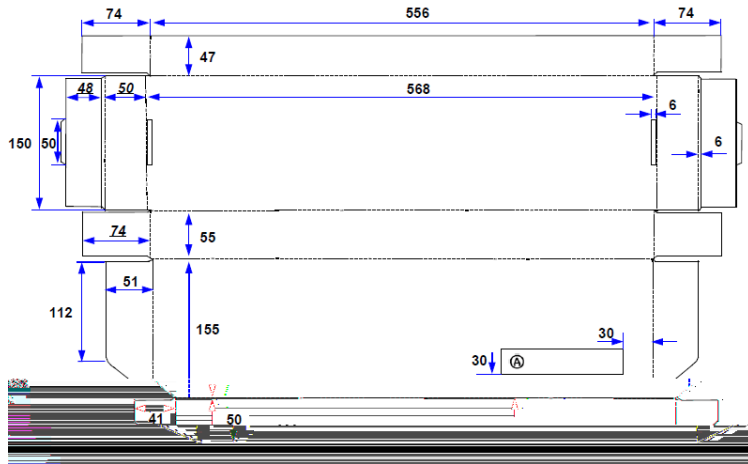
SYMBOL	MIN	NOM	MAX
A	4.80	5.00	5.20
A1	2.29	2.41	2.54
A2	1.90	2.00	2.10
b	1.10	1.20	1.30
b1	1.91	2.10	2.20
b2	2.92	3.10	3.20
c	0.50	0.60	0.70
D	20.80	21.07	21.34
D1	17.43	17.63	17.83
E	15.75	15.94	16.13
E1	13.06	13.26	13.46

0.50  
 0.60  
 0.70  
 1.10  
 1.20  
 1.30  
 1.90  
 1.91  
 2.00  
 2.10  
 2.10  
 2.20  
 2.29  
 2.41  
 2.54  
 2.92  
 3.10  
 3.20  
 4.80  
 5.00  
 5.20  
 15.75  
 15.94  
 16.13  
 17.43  
 17.63  
 17.83  
 20.80  
 21.07  
 21.34  
 13.06  
 13.26  
 13.46

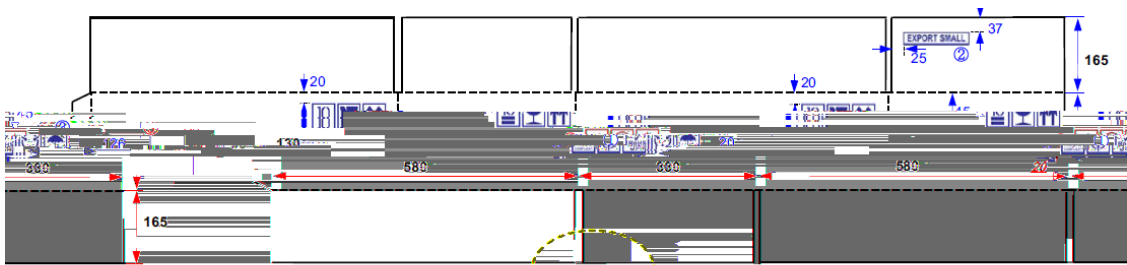
NOTE

1. THESE DIMENSION DO NOT INCLUDE WELLS

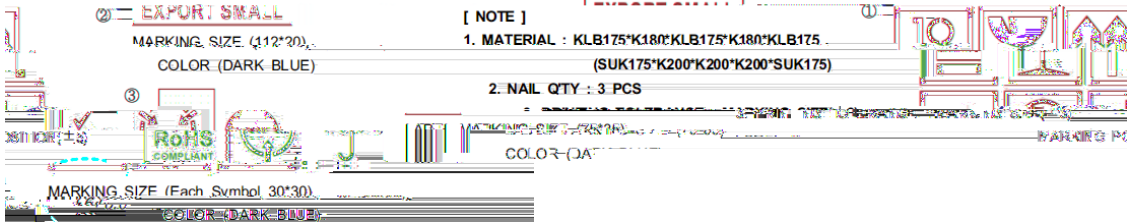
## Package Information Inner Box



## Outer Box



### [ BOX PRINTING MARKING ]



**Notes**

A.