

# Cree Power

## Tube and T&R Pack-and-Ship

### Reference Card

#### Schottky Diodes

Part Number	Package Type	Container Type	Container Quantity	Factory SPQ	MOQ
CSD01060A	TO-220-2	Tube	50	1,000	10,000
CSD01060E	TO-252-2	Tube	75	3,600	10,800
CSD01060E-TR	TO-252-2 T&R	Reel	2,500	2,500	10,000
C3D1P7060Q	3.3mm QFN T&R	Reel	5,000	5,000	5,000
C3D02060E	TO-252-2	Tube	75	3,600	3,600
C3D02060E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D02060A	TO-220-2	Tube	50	1,000	1,000
C3D02060F	TO-220-F2 FullPak	Tube	50	1,000	4,000
C3D03060E	TO-252-2	Tube	75	3,600	3,600
C3D03060E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D03060A	TO-220-2	Tube	50	1,000	1,000
C3D03060F	TO-220-F2 FullPak	Tube	50	1,000	4,000
C3D04060E	TO-252-2	Tube	75	3,600	3,600
C3D04060E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D04060A	TO-220-2	Tube	50	1,000	1,000
C3D04060F	TO-220-F2 FullPak	Tube	50	1,000	4,000
C3D06060A	TO-220-2	Tube	50	1,000	1,000
C3D06060G	TO-263-2	Tube	50	1,000	1,000
C3D06060G-TR	TO-263-2 T&R	Reel	800	2,400	2,400
C3D06060F	TO-220-F2 FullPak	Tube	50	1,000	4,000
C3D08060A	TO-220-2	Tube	50	1,000	1,000
C3D08060G	TO-263-2	Tube	50	1,000	1,000
C3D08060G-TR	TO-263-2 T&R	Reel	800	2,400	2,400
C3D10060A	TO-220-2	Tube	50	1,000	1,000
C3D10060G	TO-263-2	Tube	50	1,000	1,000
C3D10060G-TR	TO-263-2 T&R	Reel	800	2,400	2,400
C3D16060D	TO-247-3	Tube	30	600	600
C3D20060D	TO-247-3	Tube	30	600	600
C3D02065E	TO-252-2	Tube	75	3,600	3,600
C3D02065E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D03065E	TO-252-2	Tube	75	3,600	3,600
C3D03065E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D04065E	TO-252-2	Tube	75	3,600	3,600
C3D04065E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D04065A	TO-220-2	Tube	50	1,000	1,000

## Schottky Diodes

Part Number	Package Type	Container Type	Container Quantity	Factory SPQ	MOQ
C3D06065E	TO-252-2	Tube	75	3,600	3,600
C3D06065E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D06065A	TO-220-2	Tube	50	1,000	1,000
C3D08065E	TO-252-2	Tube	75	3,600	3,600
C3D08065E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D08065A	TO-220-2	Tube	50	1,000	1,000
C3D10065E	TO-252-2	Tube	75	3,600	3,600
C3D10065E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C3D10065A	TO-220-2	Tube	50	1,000	1,000
C3D16065D	TO-247-3	Tube	30	600	600
C3D20065D	TO-247-3	Tube	30	600	600
C3D06065I	TO-220-2 Isolated	Tube	50	1,000	1,000
C3D08065I	TO-220-2 Isolated	Tube	50	1,000	1,000
C3D10065I	TO-220-2 Isolated	Tube	50	1,000	1,000
CVFD20065A	TO-220-2	Tube	50	1,000	1,000
C5D50065D	TO-247-3	Tube	30	600	600
C4D02120A	TO-220-2	Tube	50	1,000	1,000
C4D02120E	TO-252-2	Tube	75	3,600	3,600
C4D02120E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C4D05120A	TO-220-2	Tube	50	1,000	1,000
C4D05120E	TO-252-2	Tube	75	3,600	3,600
C4D05120E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C4D08120A	TO-220-2	Tube	50	1,000	1,000
C4D08120E	TO-252-2	Tube	75	3,600	3,600
C4D08120E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C4D10120A	TO-220-2	Tube	50	1,000	1,000
C4D10120E	TO-252-2	Tube	75	3,600	3,600
C4D10120E-TR	TO-252-2 T&R	Reel	2,500	2,500	2,500
C4D10120D	TO-247-3	Tube	30	600	600
C4D15120A	TO-220-2	Tube	50	1,000	1,000
C4D20120A	TO-220-2	Tube	50	1,000	1,000
C4D20120D	TO-247-3	Tube	30	600	600
C4D30120D	TO-247-3	Tube	30	600	600
C4D40120D	TO-247-3	Tube	30	600	600
C3D10170H	TO-247-2	Tube	30	600	600
C3D25170H	TO-247-2	Tube	30	600	600

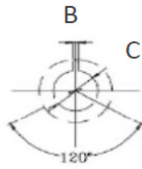
## MOSFETs

Part Number	Package Type	Container Type	Container Quantity	Factory SPQ	MOQ
C2M0025120D	TO-247-3	Tube	30	600	600
C2M0040120D	TO-247-3	Tube	30	600	600
C2M0080120D	TO-247-3	Tube	30	600	600
C2M0160120D	TO-247-3	Tube	30	600	600
C2M0280120D	TO-247-3	Tube	30	600	600
C2M1000170D	TO-247-3	Tube	30	600	600
C3M0065090D	TO-247-3	Tube	30	600	600
C3M0065090B	TO-220-3	Tube	50	1,000	1,000
C3M0065090J	TO-263-7	Tube	50	1,000	1,000
C3M0065090J-TR	TO-263-7 T&R	Reel	800	1,600	2,400

## Power Modules

Part Number	Package Type	Container Type	Container Quantity	Factory SPQ	MOQ
CCS050M12CM2	45mm	Box	1	10	10
CCS020M12CM2	45mm	Box	1	10	10
CAS120M12BM2	62mm	Box	1	10	10
CAS300M12BM2	62mm	Box	1	10	10
CAS300M17BM2	62mm	Box	1	10	10

# QFN 3.3 mm x 3.3 mm Tape & Reel Dimensions



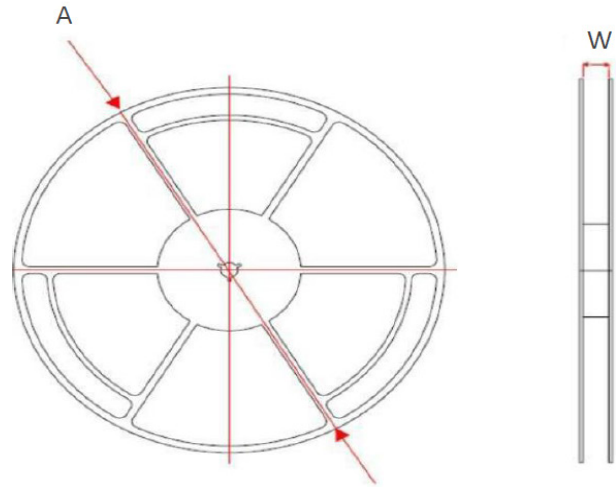
Unit: mm

A: 330 +/- 1.0

W: 13.3 +/- 0.1

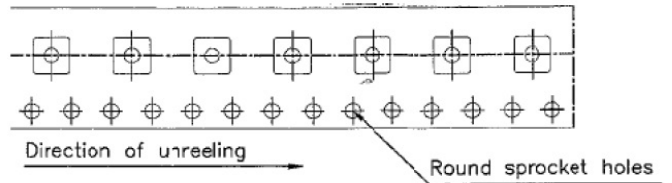
B: 1.9 +/- 0.8

C: 13.0 +/- 1.0

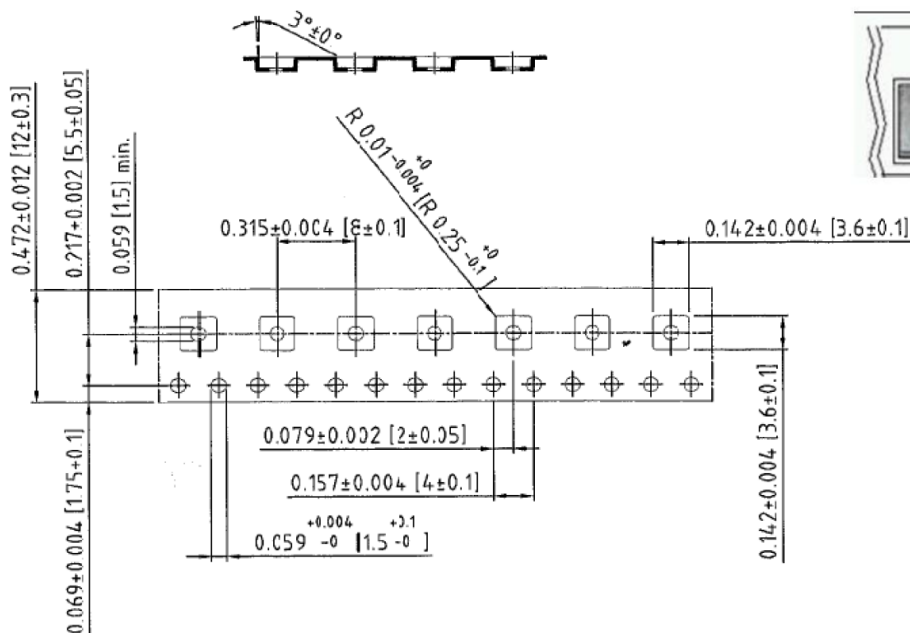
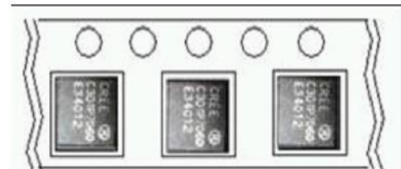


- Note:
1. Dimensions measured on the bottom of the cavity.
  2. Pitch Tolerance over any 10 pitches =  $\pm 0.008$  [0.2]

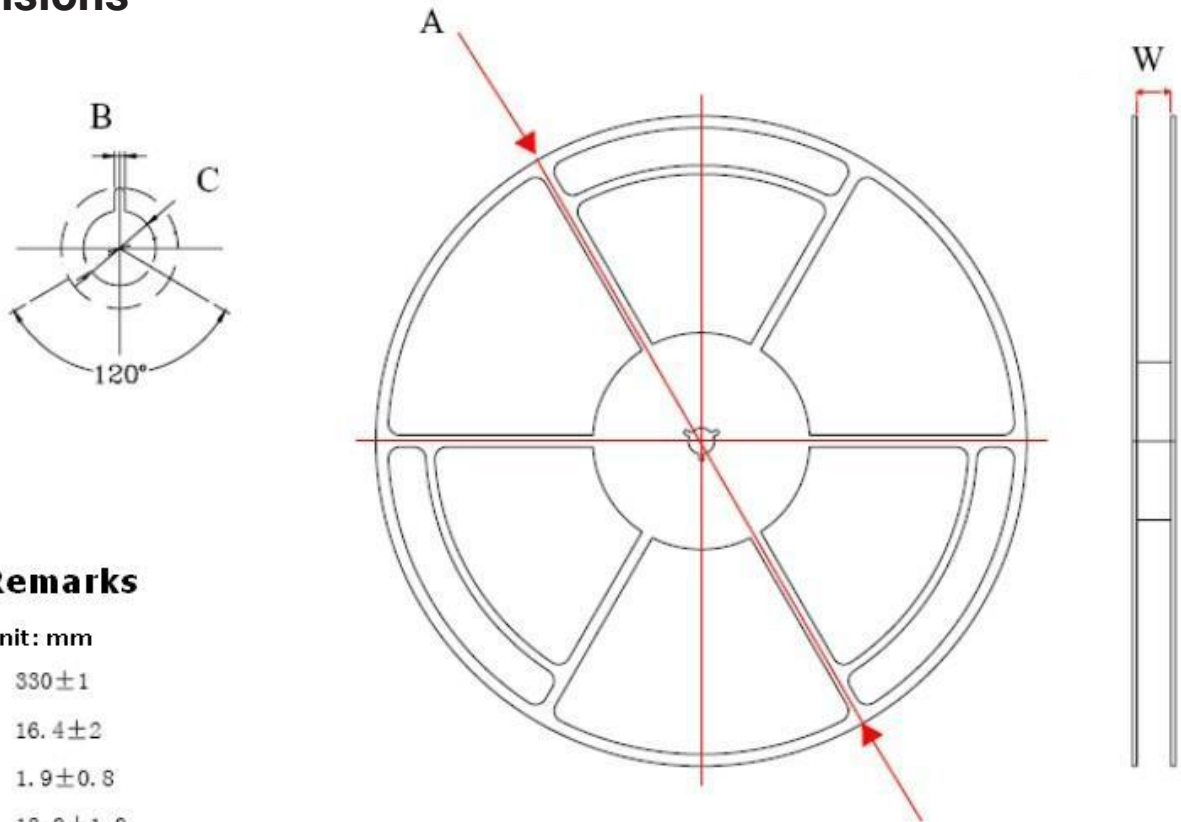
Tape thickness =  $0.002 \pm 0.001$  [0.051  $\pm$  0.025]



Device orientation on tape



# TO-252 Tape & Reel Dimensions



## Remarks

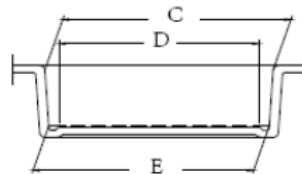
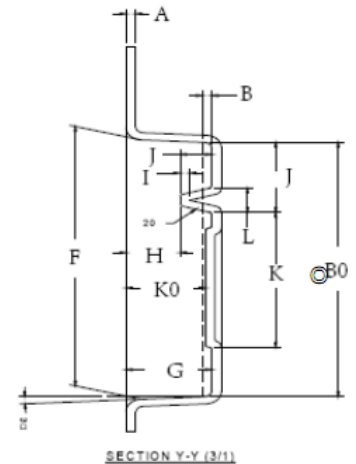
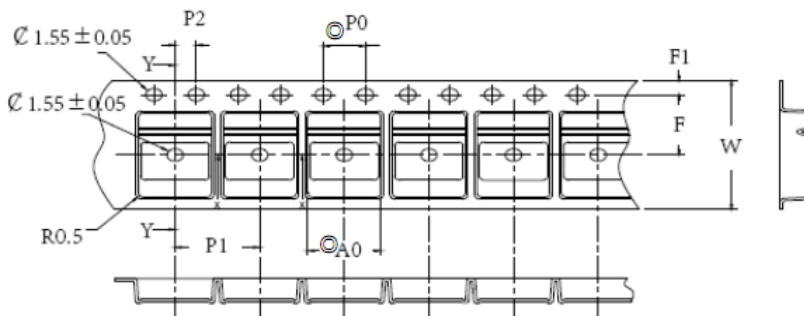
Unit: mm

A:  $330 \pm 1$

W:  $16.4 \pm 2$

B:  $1.9 \pm 0.8$

C:  $13.0 \pm 1.0$



## Remarks (Unit: mm)

B0:  $10.5 \pm 0.1$  K0:  $2.5 \pm 0.1$

A0:  $6.9 \pm 0.1$  P0:  $4.0 \pm 0.1$

P1:  $8.0 \pm 0.1$  P2:  $2.0 \pm 0.1$

W:  $16.0 \pm 0.3$

F:  $7.5 \pm 0.1$  F1:  $1.75 \pm 0.1$

A:  $0.30 \pm 0.05$  B:  $0.3$  C:  $7.1 \pm 0.1$  D:  $6.5$  E:  $6.9 \pm 0.1$

F:  $10.7 \pm 0.1$  G:  $2.7 \pm 0.1$  H:  $1.7 \pm 0.1$  I:  $0.3$  J:  $1.7$

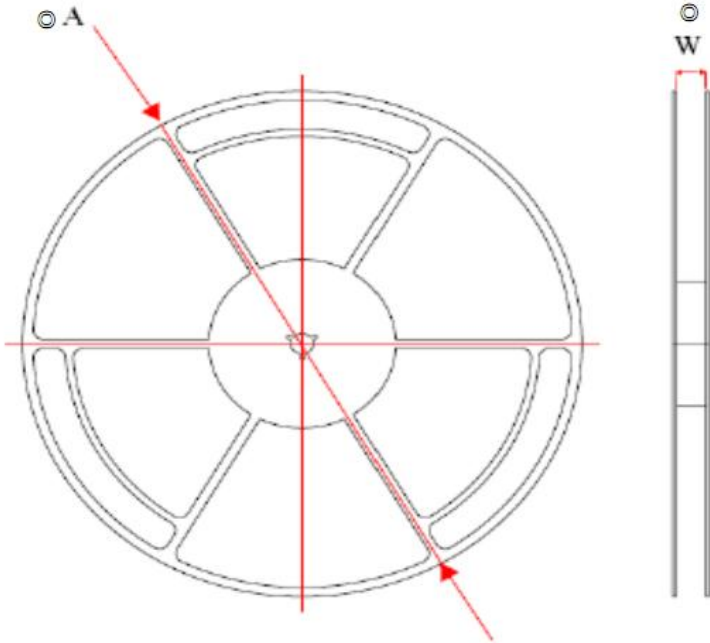
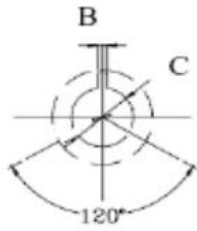
K:  $5.5$  L:  $1.2$  M:  $3$

SECTION X-X (3/1)

SECTION Y-Y (3/1)

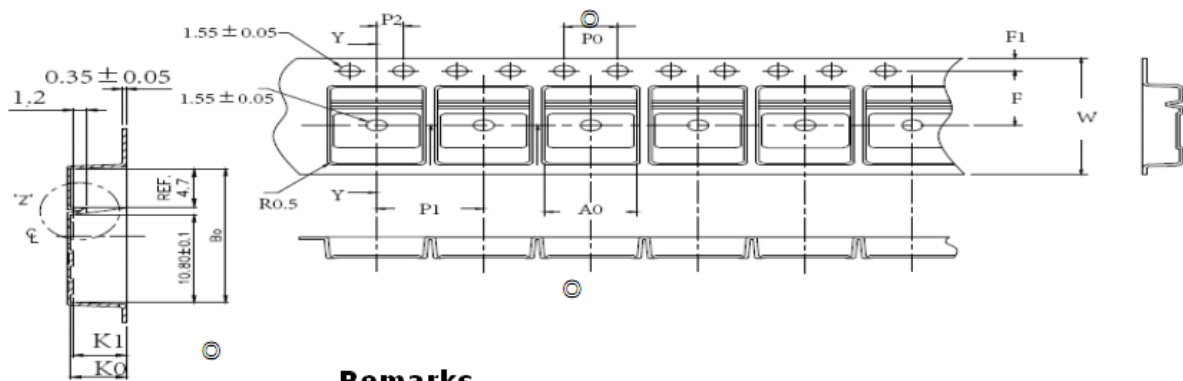
Bulk Package and Shipping Reference Card, Rev. A

# T0-263 Tape & Reel Dimensions



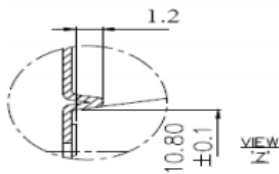
**Remarks**

- Unit: mm
- A: 330 +/- 1.0
- W: 24.4 +/- 0.3
- B: 1.9 +/- 0.8
- C: 13.0 +/- 1.0



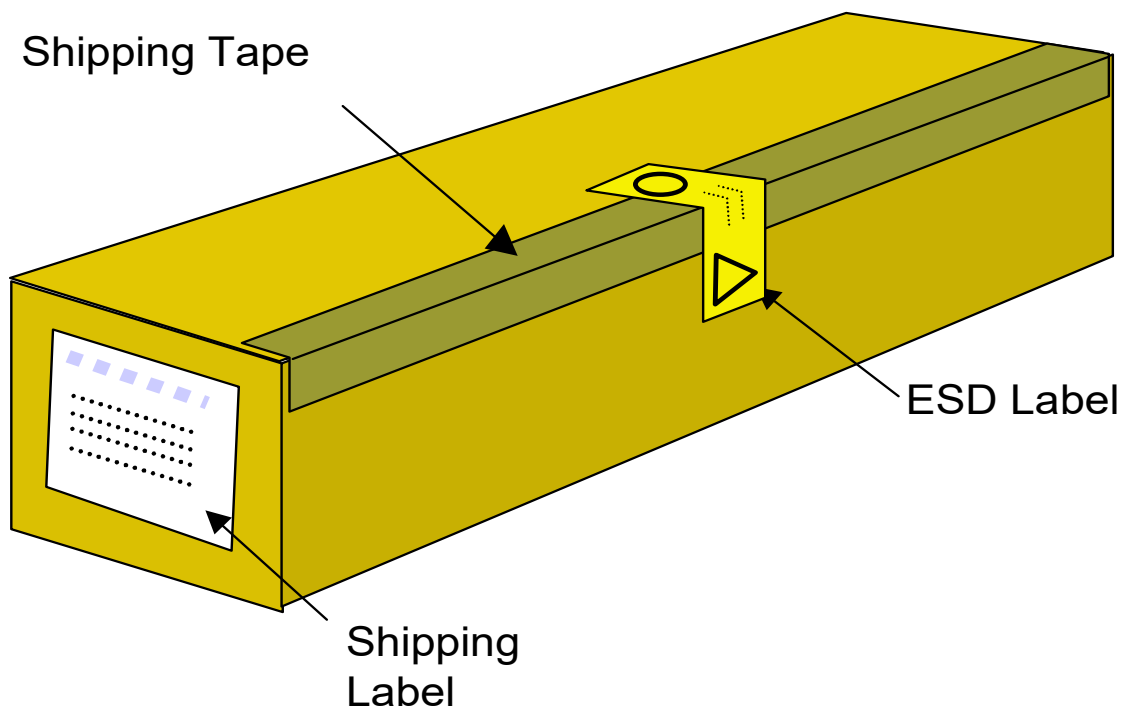
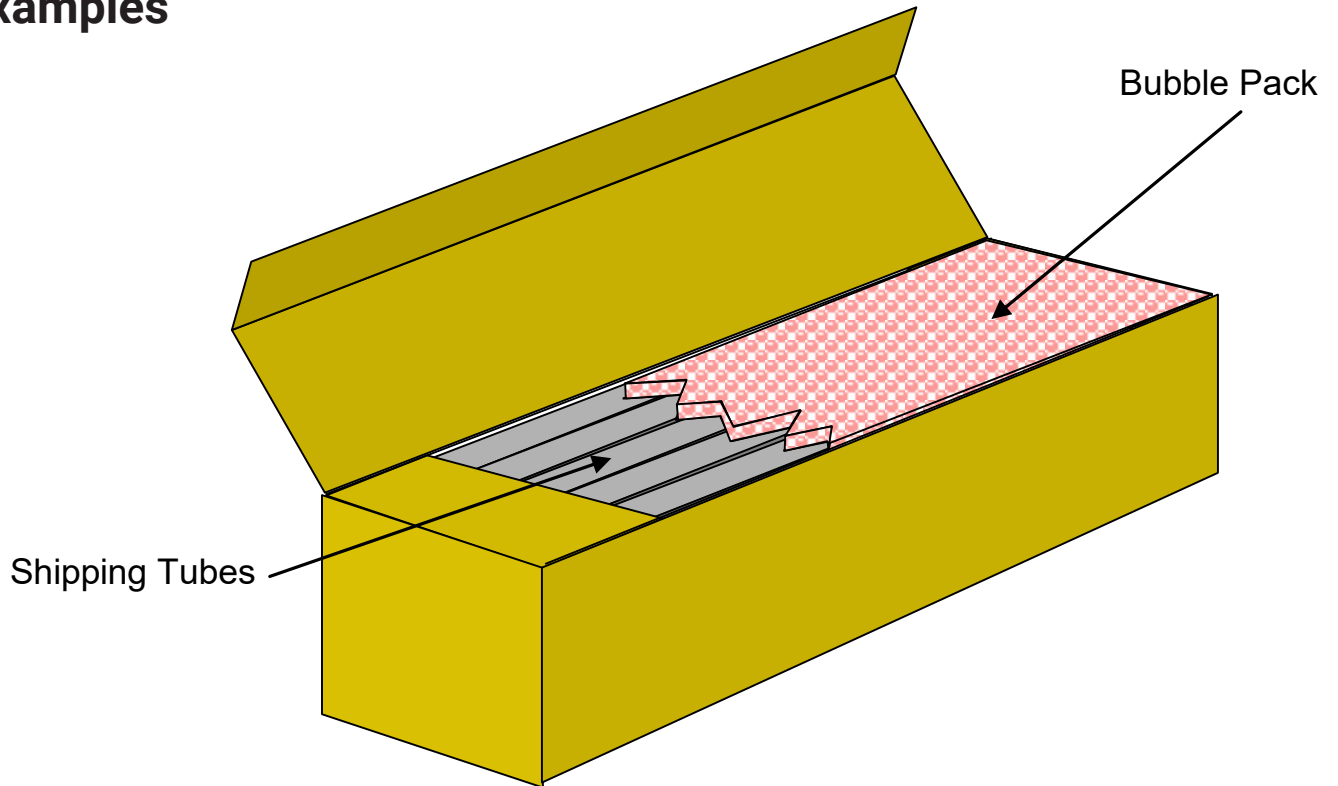
**Remarks**

- Unit: mm
- A0: 10.6 ± 0.1 B0: 16.5 ± 0.1 K0: 4.9 ± 0.1 K1: 4.7 ± 0.1
- F: 11.5 ± 0.1 W: 24.0 ± 0.3 P0: 4.0 ± 0.1 P1: 16.0 ± 0.1
- P2: 2.0 ± 0.1 F1: 1.75 ± 0.1

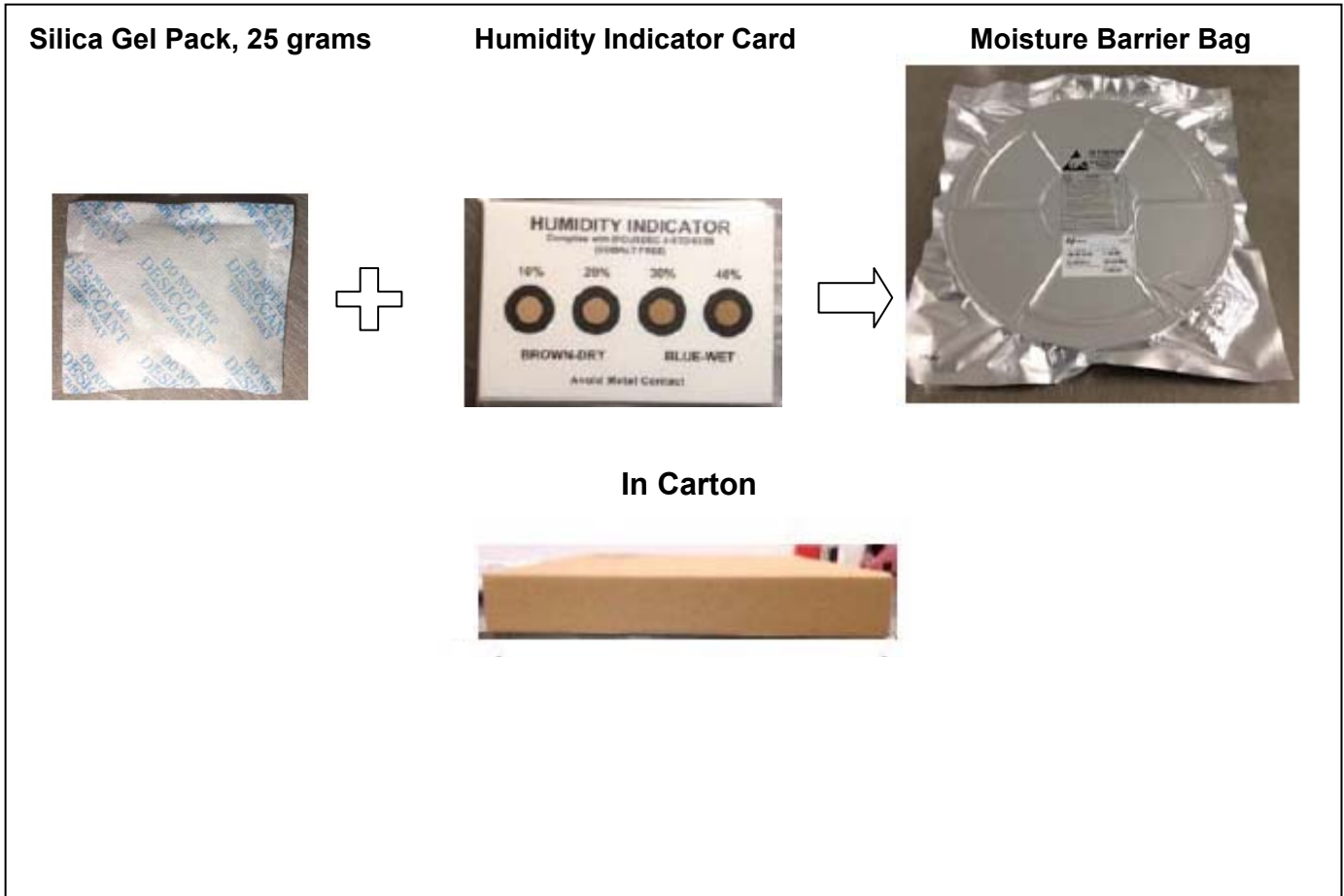


Bulk Package and Shipping Reference Card, Rev. A

## Shipping Tube Box Examples



## TO-263, QFN (3.3 mm x 3.3 mm) and TO-252 Tape & Reel Packaging Details



### Related Links

- Cree SiC Schottky diode portfolio: <http://www.cree.com/diodes>
- Cree SiC MOSFET portfolio: <http://www.cree.com/diodes>
- Cree SiC power module portfolio: <http://www.cree.com/Power/Landing-pages/module-products>
- Tools and reference documents for designing with SiC power: <http://www.cree.com/Power/Tools-and-Support>