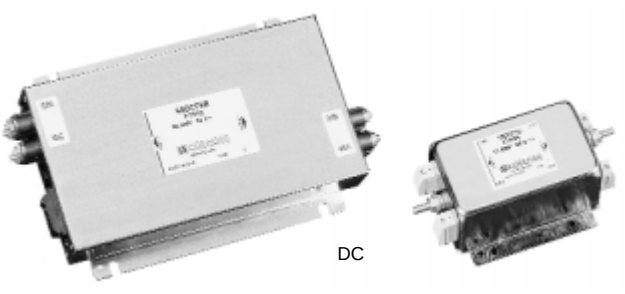
DC Series


DC

UL Recognized
CSA Certified
TUV Approved

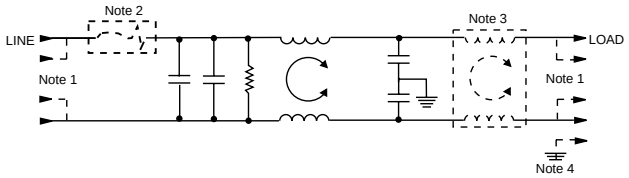
DC Series

The DC series filters were designed as general purpose line filters for DC applications. They are available with or without circuit breakers for extra protection. They are available with feed-through capacitors for added high frequency performance. The DC series is designed to comply with UL 1283, CSA 22.2 No. 8 and EN60950.

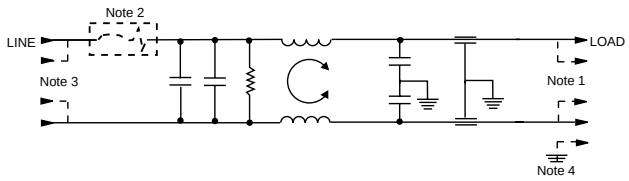
The DC series was developed in response to the increasing demand for DC filtering in the telecom-datacom market. These filters are generally used in central office equipment like switches, routers, and hubs to clean up the 48 VDC power, but are not exclusive to that equipment. They can also be used at the primary input of the DC power supply.

Electrical Schematics

Standard Performance Version



High Frequency Performance Version



Resistor location for reference only.
Note 1: Depicts redundant style 6 terminals.
Note 2: Depicts optional circuit breaker.
Note 3: For 100 & 125A versions delete second coil.
Note 4: Depicts style 10 terminal versions which have separate ground stud.

Specifications

Hipot rating (one minute):

line-to-ground	2250 VDC
line-to-line	1450 VDC

Operating Voltage (max): 80 VDC

Operating Ambient Temperature Range:
(@ rated current I_r) -10°C to +55°C

In an ambient, T_a, higher than +55°C, the maximum operating current, I_o, is as follows: $I_o = I_r \sqrt{\frac{85 - T_a}{30}}$

Minimum insertion loss in dB:
Standard Performance
Line-to-ground in 50 ohm circuit

Current	Frequency-MHz									
Rating	.01	.05	.1	.15	.5	1	3	5	10	30
15A	-	1	12	20	41	45	61	63	47	39
30A	-	4	15	23	47	59	64	56	44	36
60A	-	-	9	17	38	40	59	50	39	34
100A	-	-	10	18	38	39	53	50	35	21
125A	-	-	12	18	30	32	44	49	29	18

Line-to-line in 50 ohm circuit

Current	Frequency-MHz									
Rating	.01	.05	.1	.15	.5	1	3	5	10	30
15A	7	22	27	30	30	36	56	49	38	31
30A	7	22	28	31	32	59	56	51	41	28
60A	15	30	36	40	40	35	60	51	39	32
100A	14	29	35	39	33	30	53	53	41	30
125A	14	24	35	39	40	28	53	60	42	33

High Frequency Performance ("F" & "BF" Styles)
Line-to-ground in 50 ohm circuit

Current	Frequency-MHz										50 to	300 to
Rating	.01	.05	.1	.15	.5	1	3	5	10	20	300	3000
15A	-	1	12	20	41	45	55	50	45	25	50	30
30A	-	4	15	20	46	58	60	60	48	35	50	30
60A	-	-	9	16	38	42	52	60	48	26	40	30
100A	-	-	9	16	38	42	52	60	42	26	40	30
125A	-	-	9	16	28	34	46	54	34	34	40	30

Line-to-line in 50 ohm circuit

Current	Frequency-MHz									
Rating	.01	.05	.1	.15	.5	1	3	5	10	20
15A	7	22	27	30	30	50	60	60	60	36
30A	7	22	27	30	33	56	60	60	60	40
60A	15	30	36	40	37	26	46	54	48	30
100A	14	29	35	39	33	30	56	53	41	30
125A	14	29	35	39	40	28	53	60	42	33

Catalog 1654001
Revised 03-04

Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA Cust. Svc.: 1-800-468-2023
CORCOM Prods: 1-847-680-7400
1-508-992-4495
Germany: 49-89-6089-0

www.cor.com
www.tycoelectronics.com

DC Series

Cutout Dimensions

Part Number	A ±.005 ±.13	B ±.005 ±.13	C ±.005 ±.13	D ±.005 ±.13	E ±.005 ±.13	F ±.005 ±.13	Fig.
15DCB6(F)	**1.375** *34.93*	**1.249** *31.72*	**3.472** *88.19*	—	—	—	1
15DCB6B(F), 15DCF6B	**1.500** *38.10*	**0.781** *19.84*	**1.308** *33.22*	**3.472** *88.19*	**1.375** *34.93*	**1.249** *31.72*	2
15DCB10(F)	**1.250** *31.75*	**1.000** *25.40*	**3.472** *88.19*	—	—	—	1
15DCB10B(F), 15DCF10B	**1.500** *38.10*	**0.781** *19.84*	**1.308** *33.22*	**3.472** *88.19*	**1.250** *31.75*	**1.000** *25.40*	2
30DCB6(F)	**1.375** *34.93*	**1.249** *31.72*	**3.472** *88.19*	—	—	—	1
30DCB6B(F), 30DCF6B	**1.500** *38.10*	**0.781** *19.84*	**1.308** *33.22*	**3.472** *88.19*	**1.375** *34.93*	**1.249** *31.72*	2
30DCB10(F)	**1.250** *31.75*	**1.000** *25.40*	**3.472** *88.19*	—	—	—	1
30DCB10B(F), 30DCF10B	**1.500** *38.10*	**0.781** *19.84*	**1.308** *33.22*	**3.472** *88.19*	**1.250** *31.75*	**1.000** *25.40*	2
60DCB6(F)	**1.375** *34.93*	**1.249** *31.72*	**3.472** *88.19*	—	—	—	1
60DCB6B(F), 60DCF6B	**1.500** *38.10*	**0.781** *19.84*	**1.308** *33.22*	**3.472** *88.19*	**1.375** *34.93*	**1.249** *31.72*	2
60DCB10(F)	**1.674** *42.52*	**1.010** *25.65*	**3.443** *87.45*	—	—	—	1
60DCB10B(F), 60DCF10B	**1.500** *38.10*	**0.781** *19.84*	**1.308** *33.22*	**3.443** *87.45*	**1.674** *42.52*	**1.010** *25.65*	2
100DCB6(F)	**1.700** *43.18*	**1.549** *39.34*	**3.472** *88.19*	—	—	—	1
100DCB6B(F)	**1.700** *43.18*	**1.549** *39.34*	**4.222** *107.23*	—	—	—	3
100DCB10(F)	**1.954** *49.63*	**1.500** *38.10*	**2.803** *71.20*	—	—	—	1
100DCB10B(F)	**1.954** *49.63*	**1.500** *38.10*	**4.295** *109.09*	—	—	—	3
100DCF6B	**1.700** *43.18*	**1.549** *39.34*	**4.222** *107.23*	—	—	—	3
100DCF10B	**1.954** *49.63*	**1.500** *38.10*	**4.295** *109.09*	—	—	—	3
125DCB6(F)	**1.700** *43.18*	**1.549** *39.34*	**3.472** *88.19*	—	—	—	1
125DCB6B(F)	**1.700** *43.18*	**1.549** *39.34*	**4.222** *107.23*	—	—	—	3
125DCB10(F)	**2.250** *57.15*	**1.590** *40.39*	**2.725** *69.22*	—	—	—	1
125DCB10B(F)	**2.250** *57.15*	**1.590** *40.39*	**4.147** *105.33*	—	—	—	3
125DCF6B	**1.700** *43.18*	**1.549** *39.34*	**4.222** *107.23*	—	—	—	3
125DCF10B	**2.250** *57.15*	**1.590** *40.39*	**2.725** *105.33*	—	—	—	3

Recommended Panel Cutouts

Fig. 1 (Viewed from filter side)

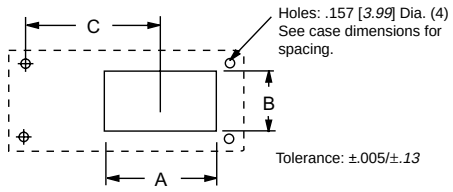


Fig. 2 (Viewed from filter side)

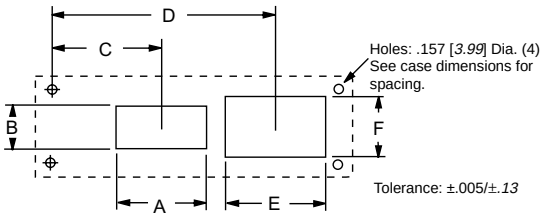
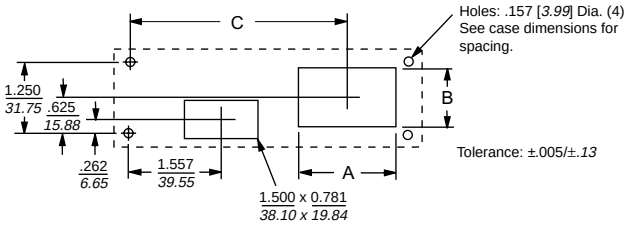


Fig.3 (Viewed from filter side)



Ordering Information

60 DC B 6 B

Current Rating
(15, 30, 60, 100, 125A)

Series Name
DC = Series Name

Mounting Style
F = Flange
B = Bulkhead and Rack

Option
B - Circuit Breaker
F - Feedthru Capacitors for High Performance (bulkhead mtg. only)
BF - Circuit Breaker and Feedthru Capacitors for High Frequency Performance (bulkhead mtg. only)

Termination Style
6 - Redundant Stud
10 - Phoenix Terminal

Part Numbers

Standard Performance			High Performance
15DCF6	15DCB6B	15DCB10	15DCB10F
30DCF6	30DCB6B	30DCB10	30DCB10F
60DCF6	60DCB6B	60DCB10	60DCB10F
100DCF6	100DCB6B	100DCB10	100DCB10F
125DCF6	125DCB6B	125DCB10	125DCB10F
15DCF6B	15DCF10	15DCB10B	15DCB6BF
30DCF6B	30DCF10	30DCB10B	30DCB6BF
60DCF6B	60DCF10	60DCB10B	60DCB6BF
100DCF6B	100DCF10	100DCB10B	100DCB6BF
125DCF6B	125DCF10	125DCB10B	125DCB6BF
15DCB6	15DCF10B		15DCB10BF
30DCB6	30DCF10B		30DCB10BF
60DCB6	60DCF10B		60DCB10BF
100DCB6	100DCF10B		100DCB10BF
125DCB6	125DCF10B		125DCB10BF

Catalog 1654001
Revised 03-04

Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA Cust. Svc.: 1-800-468-2023
CORCOM Prods: 1-847-680-7400
1-508-992-4495
Germany: 49-89-6089-0
www.cor.com
www.tycoelectronics.com

DC Series

Terminations

Style 6 (15, 30 & 60A)
Supplied with #10-32 redundant studs - 0.625 [*15.88*] spacing like polarity, 0.750 [*19.05*] spacing opposing polarity.
Torque Spec: 27±3 in-lb.

Style 6 (100 & 125A)
Supplied with 1/4-20 redundant studs - 0.750 [*19.05*] spacing like polarity.1.000 [*25.4*] spacing opposing polarity.
Torque Spec: 56±2 in-lb.

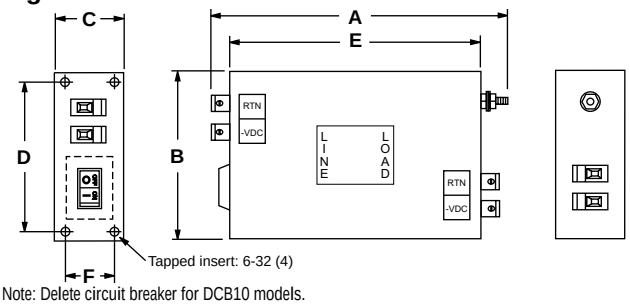
Style 10 (15 & 30A)
PHOENIX CONTACT
P/N VDFK4
Accepts 12 AWG stranded wire
Wire Strip Length: 0.315 [*8.0*]
Torque Spec: 5.5 - 7.0 in-lb.
Ground Stud 8-32

Style 10 (60A)
PHOENIX CONTACT
P/N HDFK 16-VP
Accepts 6 AWG stranded wire
Wire Strip Length: 0.630 [*16.0*]
Torque Spec: 17.7 - 21.2 in-lb.
Ground Stud 10-32

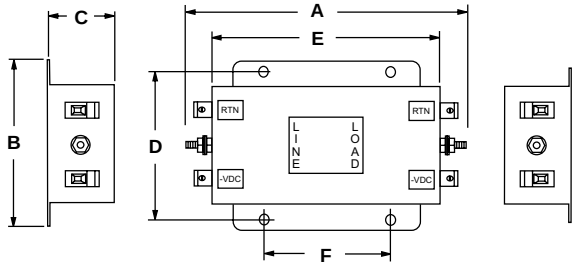
Style 10 (100A)
PHOENIX CONTACT
P/N HDFK 25-VP
Accepts 4 AWG stranded wire
Wire Strip Length: 0.748 [*19.0*]
Torque Spec: 35.4 - 39.9 in-lb.
Ground Stud 1/4 - 20

Style 10 (125A)
PHOENIX CONTACT
P/N HDFK-50-VP
Accepts 1 AWG stranded wire
Wire Strip Length: 0.945 [*24.0*]
Torque Spec: 35.4 - 39.9 in-lb.
Ground Stud 1/4 - 20

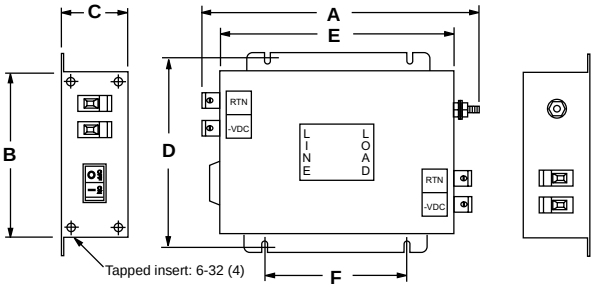
Case Styles

Figure 4


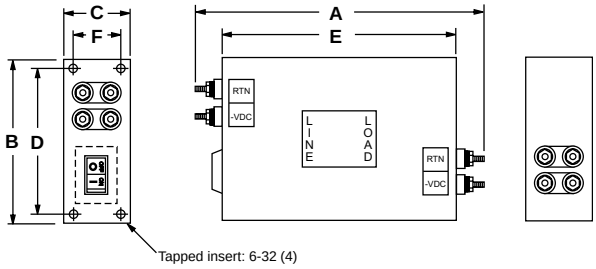
Note: Delete circuit breaker for DCB10 models.

Figure 5


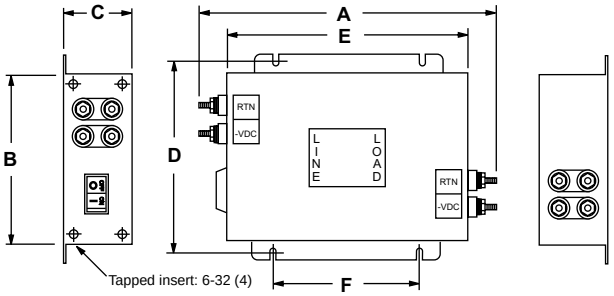
Typical dimensions:
Mounting Holes: .156 x .203 [*4.0 x 5.2*] Dia. (4)

Figure 6


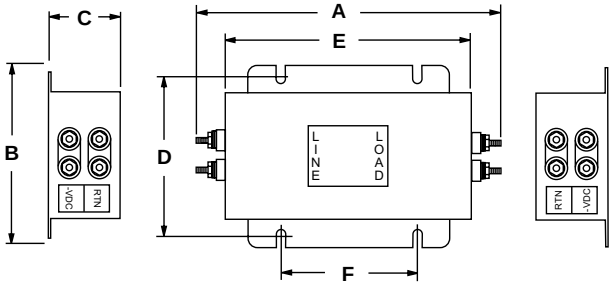
Typical dimensions:
Mounting Slots: .260 x .39 [*6.6 x 9.9*] (4)

Figure 7


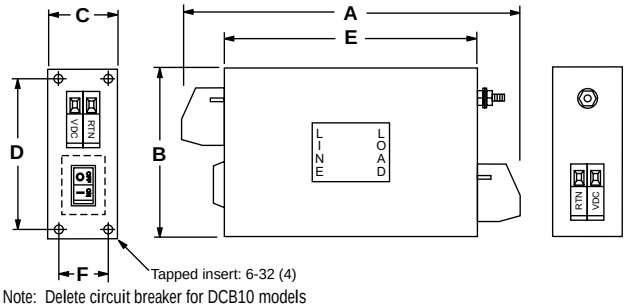
Note: Delete circuit breaker for DCB6 models.

Figure 8


Typical dimensions:
Mounting Slots: .260 x .39 [*6.6 x 9.9*] (4)

Figure 9


Typical dimensions:
Mounting Slots: .260 x .39 [*6.6 x 9.9*] (4)
Mounting Holes: .203x.156 [*5.2 x 4.0*] (4)
Note: 15A & 30A versions come with mounting holes in place of mounting slots.

Figure 10


Note: Delete circuit breaker for DCB10 models

Catalog 1654001
Revised 03-04

Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents.

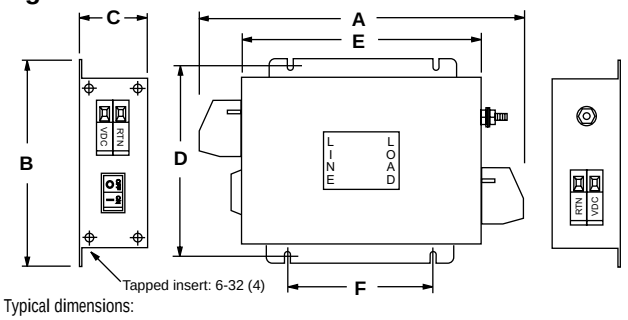
Dimensions are shown for reference purposes only. Specifications subject to change.

USA Cust. Svc.: 1-800-468-2023
CORCOM Prods: 1-847-680-7400
1-508-992-4495
Germany: 49-89-6089-0

www.cor.com
www.tycoelectronics.com

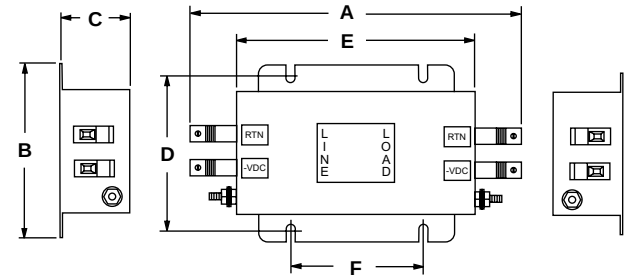
DC Series

Figure 11



Typical dimensions:
Mounting Slots: .260 x .39 [*6.6 x 9.9*] (4)

Figure 12



Typical dimensions:
Mounting Slots: .260 x .39 [*6.6 x 9.9*] (4)

Case Dimensions

Part Number	A (max)	B (max)	C (max)	D ±.020 ±.51	E (max)	F ±.020 ±.51	Fig.
15DCB6(F)	**5.69** *144.5*	**5.06** *128.5*	**1.48** *37.6*	**4.500** *114.30*	**4.06** *103.1*	**0.950** *24.13*	7
15DCB6B(F)	**7.69** *195.3*	**5.06** *128.5*	**1.48** *37.6*	**4.500** *114.30*	**6.06** *153.9*	**0.950** *24.13*	7
15DCB10(F)	**5.06** *128.5*	**5.06** *128.5*	**1.48** *37.6*	**4.500** *114.30*	**4.06** *103.1*	**0.950** *24.13*	4
15DCB10B(F)	**7.06** *179.3*	**5.06** *128.5*	**1.48** *37.6*	**4.500** *114.30*	**6.06** *153.9*	**0.950** *24.13*	4
15DCF6	**5.33** *135.4*	**3.10** *78.7*	**1.78** *45.2*	**2.677** *68.00*	**3.70** *94.0*	**2.000** *50.80*	9
15DCF6B(F)	**7.69** *195.3*	**5.06** *128.5*	**1.48** *37.6*	**5.740** *145.80*	**6.06** *153.9*	**3.520** *89.41*	8
15DCF10	**4.75** *120.7*	**3.10** *78.7*	**1.78** *45.2*	**2.677** *68.0*	**3.70** *94.0*	**2.000** *50.80*	5
15DCF10B(F)	**7.06** *179.3*	**5.06** *128.5*	**1.48** *37.6*	**5.740** *145.80*	**6.06** *153.9*	**3.520** *89.41*	6
30DCB6(F)	**7.69** *195.3*	**5.06** *128.5*	**1.48** *37.6*	**4.500** *114.30*	**6.06** *153.9*	**0.950** *24.13*	7
30DCB6B(F)	**8.69** *220.7*	**5.06** *128.5*	**1.48** *37.6*	**4.500** *114.30*	**7.06** *179.3*	**0.950** *24.13*	7
30DCB10(F)	**7.06** *179.3*	**5.06** *128.5*	**1.48** *37.6*	**4.500** *114.30*	**6.06** *153.9*	**0.950** *24.13*	4
30DCB10B(F)	**8.06** *204.7*	**5.06** *128.5*	**1.48** *37.6*	**4.500** *114.30*	**7.06** *179.3*	**0.950** *24.13*	4
30DCF6	**6.19** *157.2*	**3.96** *100.6*	**2.18** *55.4*	**3.500** *88.90*	**4.56** *115.8*	**2.000** *50.80*	9

Case Dimensions (cont'd)

Part Number	A (max)	B (max)	C (max)	D ±.020 ±.51	E (max)	F ±.020 ±.51	Fig.
30DCF6B	**8.690** *220.73*	**5.000** *127.00*	**1.480** *37.6*	**5.740** *145.80*	**7.060** *179.3*	**4.520** *114.81*	8
30DCF10	**5.560** *141.2*	**3.960** *100.58*	**2.180** *55.4*	**3.500** *88.90*	**4.560** *115.8*	**2.000** *50.80*	5
30DCF10B	**8.060** *204.7*	**5.060** *128.52*	**1.480** *37.6*	**5.740** *145.80*	**7.060** *179.3*	**4.520** *114.81*	6
60DCB6(F)	**8.690** *220.73*	**5.060** *128.52*	**1.480** *37.6*	**4.500** *114.30*	**7.060** *179.3*	**0.950** *24.13*	7
60DCB6B(F)	**10.690** *271.5*	**5.060** *128.52*	**1.480** *37.6*	**4.500** *114.30*	**9.060** *230.1*	**0.950** *24.13*	7
60DCB10(F)	**9.750** *247.7*	**5.060** *128.52*	**1.480** *37.6*	**4.500** *114.30*	**7.060** *179.3*	**0.950** *24.13*	10
60DCB10B(F)	**11.750** *298.5*	**5.060** *128.52*	**1.480** *37.6*	**4.500** *114.30*	**9.060** *230.1*	**0.950** *24.13*	10
60DCF6	**7.560** *192.0*	**5.480** *139.2*	**2.550** *64.8*	**4.920** *124.97*	**5.940** *150.9*	**2.756** *70.00*	9
60DCF6B	**10.690** *271.5*	**5.060** *128.52*	**1.480** *37.6*	**5.740** *145.80*	**9.060** *230.1*	**6.520** *165.61*	8
60DCF10	**8.560** *217.4*	**5.480** *139.2*	**2.550** *64.8*	**4.920** *124.97*	**5.940** *150.9*	**2.576** *65.43*	12
60DCF10B	**11.750** *298.5*	**5.060** *128.5*	**1.480** *37.6*	**5.7400** *145.80*	**9.060** *230.1*	**6.520** *165.61*	11
100DCB6(F)	**10.310** *261.9*	**5.060** *128.5*	**1.780** *45.2*	**4.500** *114.30*	**8.060** *204.7*	**1.250** *31.75*	7
100DCB6B(F)	**12.310** *312.7*	**6.060** *153.9*	**1.780** *45.2*	**5.500** *139.7*	**10.060** *255.5*	**1.250** *31.75*	7
100DCB10(F)	**11.130** *282.6*	**5.060** *128.5*	**1.780** *45.2*	**4.500** *114.30*	**8.060** *204.7*	**1.250** *31.75*	10
100DCB10B(F)	**13.130** *333.5*	**6.060** *153.9*	**1.780** *45.2*	**5.500** *139.7*	**10.060** *255.5*	**1.250** *31.75*	10
100DCF6	**10.600** *269.2*	**6.300** *160.0*	**2.520** *64.0*	**5.700** *144.78*	**8.460** *214.9*	**4.520** *114.81*	9
100DCF6B	**12.310** *312.7*	**6.060** *153.9*	**1.780** *45.2*	**6.740** *171.2*	**10.060** *255.5*	**7.520** *191.01*	8
100DCF10	**11.500** *292.1*	**6.300** *160.0*	**2.520** *64.0*	**5.700** *144.78*	**8.460** *214.9*	**4.520** *114.81*	12
100DCF10B	**13.130** *333.5*	**6.060** *153.9*	**1.780** *45.2*	**6.740** *171.2*	**10.060** *255.5*	**7.520** *191.01*	11
125DCB6(F)	**10.310** *261.9*	**5.060** *128.5*	**1.780** *45.2*	**4.500** *114.30*	**8.060** *204.7*	**1.250** *31.75*	7
125DCB6B(F)	**12.310** *312.7*	**6.060** *153.9*	**1.780** *45.2*	**5.500** *139.7*	**10.060** *255.5*	**1.250** *31.75*	7
125DCB10(F)	**11.500** *292.1*	**5.060** *128.5*	**1.780** *45.2*	**4.500** *114.30*	**8.060** *204.7*	**1.250** *31.75*	10
125DCB10B(F)	**13.500** *342.9*	**6.060** *153.9*	**1.780** *45.2*	**5.500** *139.7*	**10.060** *255.5*	**1.250** *31.75*	10
125DCF6	**10.600** *269.2*	**6.300** *160.0*	**2.520** *64.0*	**5.700** *144.78*	**8.460** *214.9*	**4.520** *114.81*	9
125DCF6B	**12.310** *312.7*	**6.060** *153.9*	**1.780** *45.2*	**6.740** *171.2*	**10.060** *255.5*	**7.520** *191.01*	8
125DCF10	**11.860** *301.2*	**6.300** *160.0*	**2.520** *64.0*	**5.700** *144.78*	**8.460** *214.9*	**4.520** *114.81*	12
125DCF10B	**13.500** *342.9*	**6.060** *153.9*	**1.780** *45.2*	**6.740** *171.2*	**10.060** *255.5*	**7.520** *191.01*	11

Catalog 1654001
Revised 03-04

Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA Cust. Svc.: 1-800-468-2023
CORCOM Prods: 1-847-680-7400
1-508-992-4495
Germany: 49-89-6089-0
www.cor.com
www.tycoelectronics.com