

+105°C Miniature Radial Lead, Aluminum Capacitors

Features-

- Low Impedance
- Low ESR
- High Ripple Current Capability
- High Capacitance
- Long Life and Stability

General Specifications-

Operating Temperature:
-55 to +105°C

Voltage Range:
6.3 – 35 VDC

Capacitance Range:
120µF to 15,000µF

Capacitance Tolerance:
±20% (Std.)

Case Size Range:
8.0 X 12.0mm – 18.0 X 40.0mm

Termination:
2 or 3 Lead Radial And Axial Mount.

Life Validation Test: 5,000hrs @ +105°C
 Δ CAP ≤ 20% From initial measurement.
 Δ ESR ≤ 1.25X Initial specified limit.
 Δ DCL ≤ Initial specified limit.
 Δ Z ≤ 1.75X From initial measurement.

Shelf Test: 1,000hrs @ +105°C
 Δ CAP ≤ 15% From initial measurement.
 Δ ESR ≤ 1.10X Initial specified limit.
 Δ DCL ≤ Initial specified limit.

DC Leakage Current: (After 2 min. charge)

$$I = 0.01CV$$

Where:

- I is in µA
- C is in µF
- V is in Volts



Ripple Current Multipliers:

Temperature:

Ambient Temp.	Multiplier
+105°C	1.00
+85°C	1.73
+65°C	2.23
+45°C	2.64
+25°C	3.00

Frequency (Hz):

VDC	400	1k-19k	20k-200k
6.3 – 35	0.75	0.82	1.00

Low Temperature Performance:

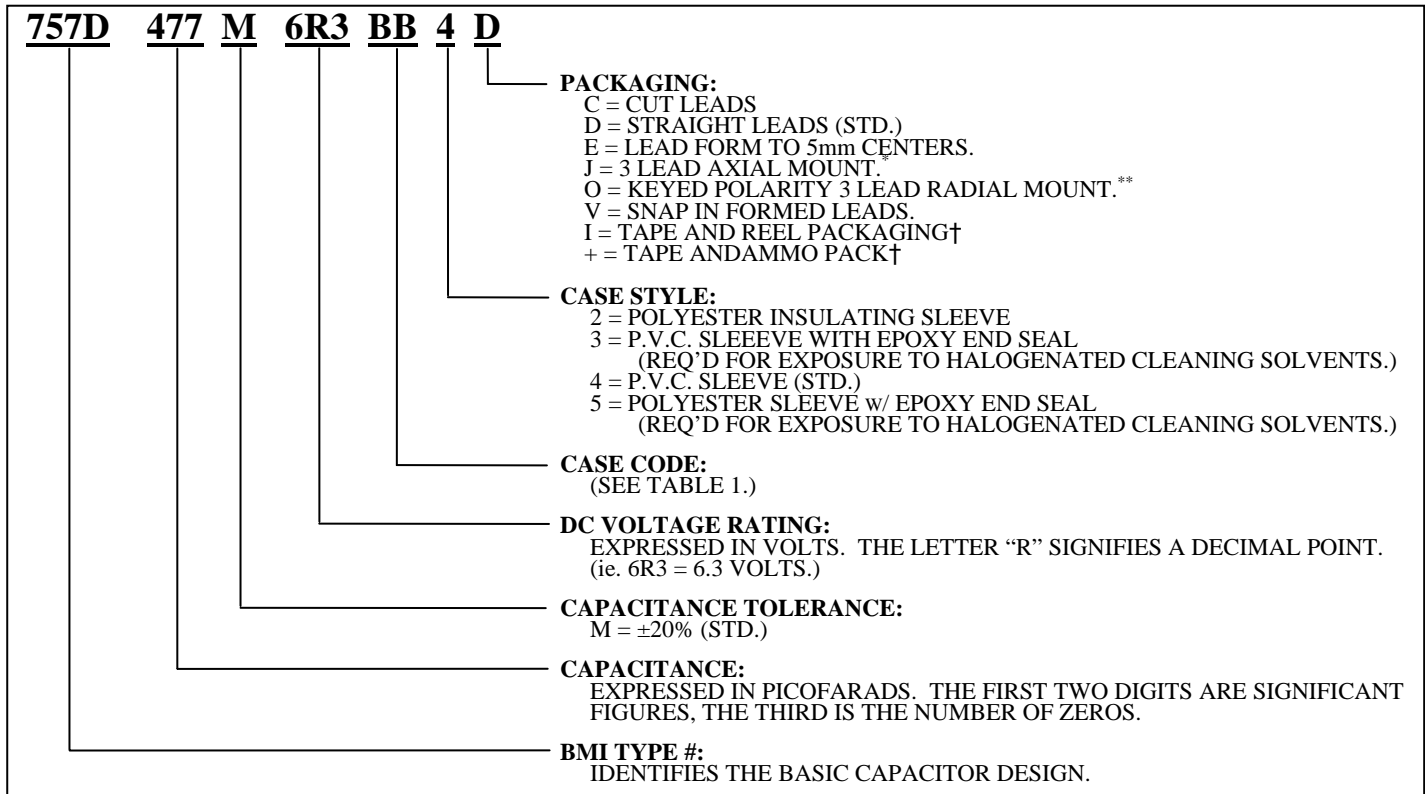
Capacitance Ratio $C^{-55°C}/C^{+25°C}$ min. @ 120Hz.

Max. Capacitance Change	Multiplier
	0.75

Impedance Ratio $Z^{-55°C}/Z^{+25°C}$ min.

Max. Impedance Change	120Hz	20 – 100kHz
	4X	40X

PART NUMBER BREAK-DOWN:



*Available for 12.5, 16, and 18mm dia. units.

**Available for 12.5, 16, and 18mm dia. units with epoxy end-seal.

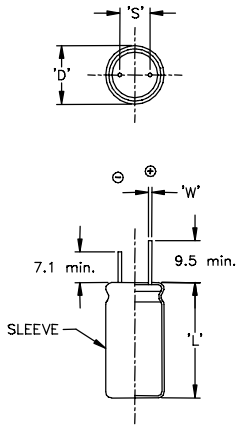
† Available for 8 and 10 mm dia. units.

Table 1. Case Dimensions mm(in.)

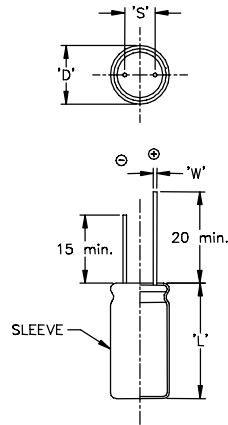
CASE CODE	NOMINAL		STYLES 2 & 4		STYLES 3 & 5 (w/EPOXY)		LEAD SPACING		WIRE GAUGE 'W'
	'D'	'L'	'D' MAX.	'L' MAX.	'D' MAX.	'L' MAX.	S ± 0.6	T ± 0.5	
BB	8.0 (0.315)	12.0 (0.472)	8.5 (0.335)	13.0 (0.512)	8.5 (0.335)	14.0 (0.551)	3.5 (0.138)	N/A	No. 22 AWG (0.025)
CC	10.0 (0.394)	13.0 (0.512)	10.5 (0.413)	14.3 (0.563)	10.5 (0.413)	16.0 (0.630)	5.0 (0.197)	N/A	No. 22 AWG (0.025)
CD	10.0 (0.394)	16.0 (0.630)	10.5 (0.413)	17.0 (0.669)	10.5 (0.413)	18.8 (0.740)	5.0 (0.197)	N/A	No. 22 AWG (0.025)
CG	10.0 (0.394)	20.0 (0.787)	10.5 (0.413)	21.5 (0.846)	10.5 (0.413)	23.0 (0.906)	5.0 (0.197)	N/A	No. 22 AWG (0.025)
DG	12.5 (0.492)	20.0 (0.787)	13.0 (0.512)	21.2 (0.835)	13.0 (0.512)	23.0 (0.906)	5.0 (0.197)	2.5 (0.098)	No. 20 AWG (0.032)
DK	12.5 (0.492)	25.0 (0.984)	13.0 (0.512)	26.2 (1.031)	13.0 (0.512)	29.0 (1.142)	5.0 (0.197)	2.5 (0.098)	No. 20 AWG (0.032)
DM	12.5 (0.492)	26.5 (1.043)	13.0 (0.512)	28.0 (1.102)	13.0 (0.512)	29.5 (1.161)	5.0 (0.197)	2.5 (0.098)	No. 20 AWG (0.032)
DT	12.5 (0.492)	33.5 (1.319)	13.0 (0.512)	34.2 (1.347)	13.0 (0.512)	36.0 (1.417)	5.0 (0.197)	2.5 (0.098)	No. 20 AWG (0.032)
DS	12.5 (0.492)	42.5 (1.673)	13.0 (0.512)	43.7 (1.721)	13.0 (0.512)	45.5 (1.791)	5.0 (0.197)	2.5 (0.098)	No. 20 AWG (0.032)
EK	16.0 (0.630)	25.0 (0.984)	16.5 (0.650)	26.2 (1.032)	16.5 (0.650)	27.9 (1.098)	7.5 (0.295)	3.8 (0.150)	No. 20 AWG (0.032)
EN	16.0 (0.630)	32.0 (0.260)	16.5 (0.650)	33.5 (1.319)	16.5 (0.650)	36.0 (1.417)	7.5 (0.295)	3.8 (0.150)	No. 20 AWG (0.032)
ER	16.0 (0.630)	36.0 (1.417)	16.5 (0.650)	37.5 (1.476)	16.5 (0.650)	40.0 (1.575)	7.5 (0.295)	3.8 (0.150)	No. 20 AWG (0.032)
EU	16.0 (0.630)	40.0 (1.575)	16.5 (0.650)	41.7 (1.642)	16.5 (0.650)	42.4 (1.669)	7.5 (0.295)	3.8 (0.150)	No. 20 AWG (0.032)
FR	18.0 (0.709)	36.0 (1.417)	18.5 (0.728)	37.5 (1.476)	18.5 (0.728)	40.0 (1.575)	7.5 (0.295)	3.8 (0.150)	No. 20 AWG (0.032)
FV	18.0 (0.709)	40.0 (1.575)	18.5 (0.728)	41.7 (1.642)	18.5 (0.728)	42.4 (1.669)	7.5 (0.295)	3.8 (0.150)	No. 20 AWG (0.032)

Radial-Leaded Capacitor Dimensions

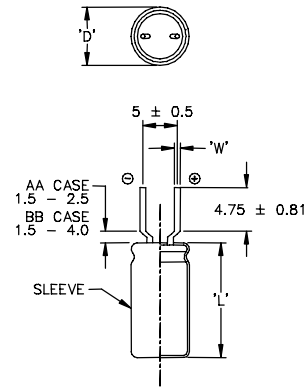
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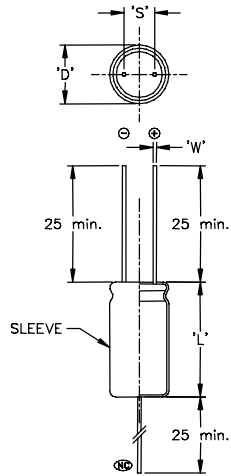
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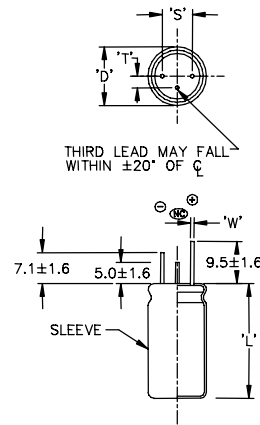
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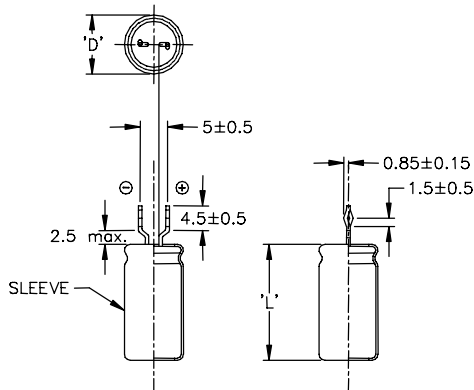
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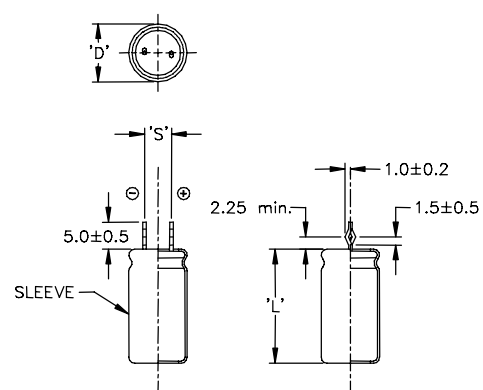
TERMINAL CODE O



TERMINAL CODE V 8 mm Dia.



TERMINAL CODE V 10 - 18 mm Dia.



Dimensions in mm

⊕ Positive Lead ⊖ Negative Lead Ⓞ No Charge Potential

STANDARD RATINGS FOR TYPE 757D

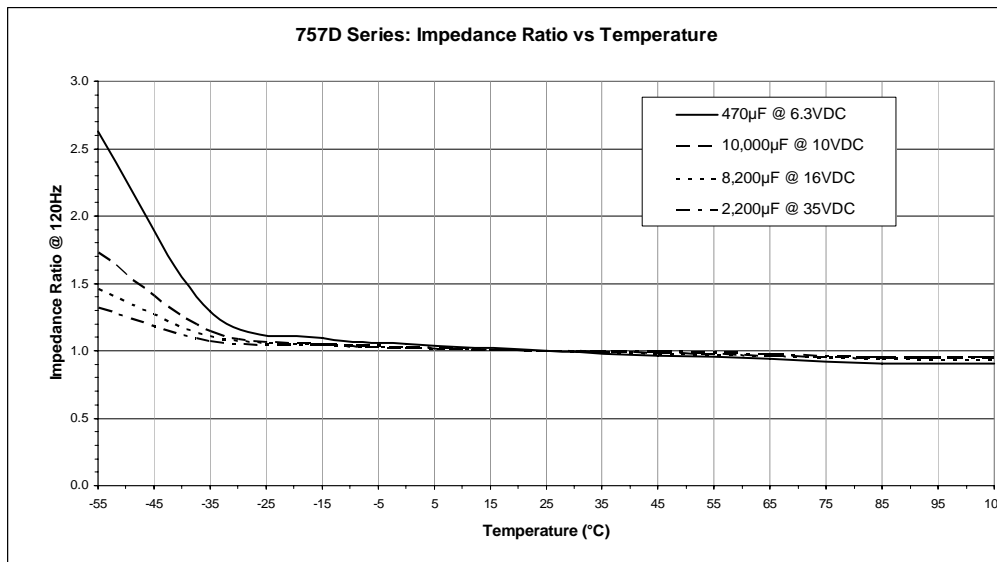
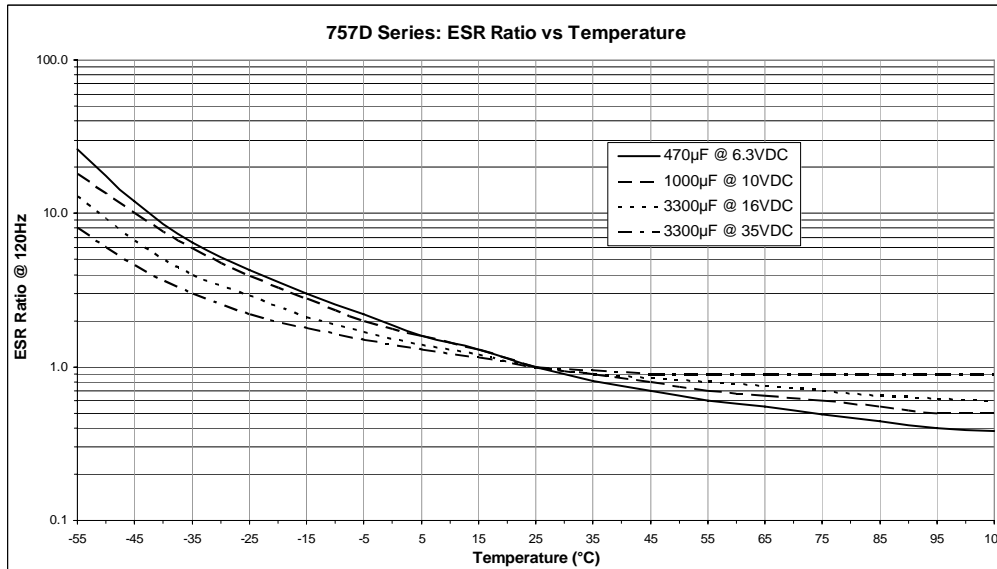
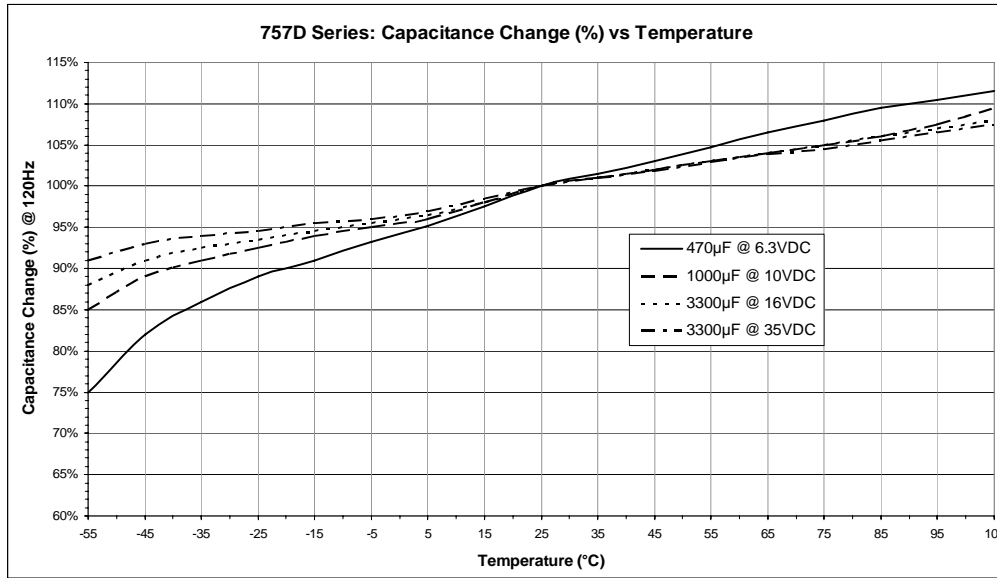
Rated Capacitance (μ F)	Catalog Number	Nominal Case Size D x L (mm)	Max.	Max.	Max.	Max.	Max.
			ESR +25°C 120Hz (Ω)	ESR +25°C 20-40kHz (Ω)	Ripple Current +105°C 120Hz (A _{rms})	Ripple Current +105°C 20-40kHz (A _{rms})	Z +25°C 100kHz (Ω)
6.3 VOLTS DC WORKING; 8 VOLTS DC SURGE							
470	757D477M6R3BB4D	8.0 x 12.0	0.523	0.163	0.470	0.658	0.198
680	757D687M6R3CC4D	10.0 x 13.0	0.310	0.098	0.650	0.907	0.120
820	757D827M6R3CD4D	10.0 x 16.0	0.194	0.077	0.880	1.090	0.096
1,200	757D128M6R3CG4D	10.0 x 20.0	0.130	0.053	1.200	1.470	0.065
2,200	757D228M6R3DG4D	12.5 x 20.0	0.113	0.038	1.330	1.810	0.049
2,700	757D278M6R3DK4D	12.5 x 25.0	0.076	0.031	1.780	2.180	0.040
3,900	757D398M6R3DT4D	12.5 x 33.5	0.049	0.020	2.450	2.980	0.026
5,600	757D568M6R3DS4D	12.5 x 42.5	0.034	0.017	3.260	3.610	0.021
5,600	757D568M6R3EK4D	16.0 x 25.0	0.062	0.022	2.150	2.820	0.028
6,800	757D688M6R3EN4D	16.0 x 32.0	0.043	0.019	2.840	3.350	0.024
8,200	757D828M6R3ER4D	16.0 x 36.0	0.035	0.016	3.300	3.820	0.020
12,000	757D129M6R3EU4D	16.0 x 40.0	0.031	0.014	3.630	4.240	0.018
12,000	757D129M6R3FR4D	18.0 x 36.0	0.038	0.017	3.200	3.830	0.021
15,000	757D159M6R3FV4D	18.0 x 40.0	0.032	0.015	3.680	4.280	0.019
10 VOLTS DC WORKING; 12 VOLTS DC SURGE							
330	757D337M010BB4D	8.0 x 12.0	0.576	0.163	0.450	0.658	0.198
470	757D477M010CC4D	10.0 x 13.0	0.340	0.098	0.620	0.907	0.120
560	757D567M010CD4D	10.0 x 16.0	0.212	0.077	0.840	1.090	0.096
1,000	757D108M010CG4D	10.0 x 20.0	0.142	0.053	1.140	1.470	0.065
1,800	757D187M010DG4D	12.5 x 20.0	0.123	0.038	1.280	1.810	0.049
2,200	757D228M010DK4D	12.5 x 25.0	0.082	0.031	1.710	2.180	0.040
2,700	757D278M010DT4D	12.5 x 33.5	0.053	0.020	2.350	2.980	0.026
3,900	757D398M010DS4D	12.5 x 42.5	0.037	0.017	3.130	3.610	0.021
3,900	757D398M010EK4D	16.0 x 25.0	0.066	0.022	2.150	2.820	0.028
5,600	757D568M010EN4D	16.0 x 32.0	0.045	0.019	2.770	3.350	0.024
6,800	757D688M010ER4D	16.0 x 36.0	0.037	0.016	3.220	3.820	0.020
8,200	757D828M010EU4D	16.0 x 40.0	0.033	0.014	3.540	4.240	0.018
8,200	757D828M010FR4D	18.0 x 36.0	0.040	0.017	3.140	3.830	0.021
10,000	757D109M010FV4D	18.0 x 40.0	0.033	0.015	3.610	4.280	0.019
16 VOLTS DC WORKING; 20 VOLTS DC SURGE							
270	757D277M016BB4D	8.0 x 12.0	0.703	0.163	0.400	0.658	0.198
330	757D337M016CC4D	10.0 x 13.0	0.410	0.098	0.560	0.907	0.120
390	757D397M016CD4D	10.0 x 16.0	0.257	0.077	0.770	1.090	0.096
680	757D687M016GC4D	10.0 x 20.0	0.171	0.053	1.040	1.470	0.065
1,200	757D128M016DG4D	12.5 x 20.0	0.145	0.038	1.260	1.810	0.049
1,500	757D158M016DK4D	12.5 x 25.0	0.097	0.031	1.570	2.180	0.045
2,200	757D228M016DT4D	12.5 x 33.5	0.062	0.020	2.170	2.980	0.026
3,300	757D338M016DS4D	12.5 x 42.5	0.043	0.017	2.880	3.610	0.021
2,700	757D278M016EK4D	16.0 x 25.0	0.074	0.022	2.150	2.820	0.028
3,900	757D398M016EN4D	16.0 x 32.0	0.051	0.019	2.610	3.350	0.024
4,700	757D478M016ER4D	16.0 x 36.0	0.041	0.016	3.040	3.820	0.020
5,600	757D568M016EU4D	16.0 x 40.0	0.037	0.014	3.340	4.240	0.018
6,800	757D688M016FR4D	18.0 x 36.0	0.044	0.017	3.010	3.830	0.021
8,200	757D828M016FV4D	18.0 x 40.0	0.036	0.015	3.450	4.280	0.019

STANDARD RATINGS FOR TYPE 757D

Rated Capacitance (μF)	Catalog Number	Nominal Case Size D x L (mm)	Max. ESR +25°C 120Hz (Ω)	Max. ESR +25°C 20-40kHz (Ω)	Max. Ripple Current +105°C 120Hz (A _{rms})	Max. Ripple Current +105°C 20-40kHz (A _{rms})	Max. Z +25°C 100kHz (Ω)
25 VOLTS DC WORKING; 35 VOLTS DC SURGE							
180	757D187M025BB4D	8.0 x 12.0	0.851	0.163	0.370	0.658	0.198
220	757D227M025CC4D	10.0 x 13.0	0.493	0.098	0.510	0.907	0.120
270	757D277M025CD4D	10.0 x 16.0	0.308	0.077	0.700	1.090	0.096
470	757D477M025CG4D	10.0 x 20.0	0.206	0.053	0.950	1.470	0.065
820	757D827M025DG4D	12.5 x 20.0	0.171	0.038	1.120	1.810	0.049
1,000	757D108M025DK4D	12.5 x 25.0	0.114	0.031	1.450	2.180	0.040
1,500	757D158M025DT4D	12.5 x 33.5	0.073	0.020	1.990	2.980	0.026
2,200	757D228M025DS4D	12.5 x 42.5	0.051	0.017	2.660	3.610	0.021
1,800	757D188M025EK4D	16.0 x 25.0	0.083	0.022	2.150	2.820	0.028
2,700	757D278M025EN4D	16.0 x 32.0	0.057	0.019	2.460	3.350	0.024
3,300	757D338M025ER4D	16.0 x 36.0	0.047	0.016	2.870	3.820	0.020
3,900	757D398M025EU4D	16.0 x 40.0	0.041	0.014	3.150	4.240	0.018
3,900	757D398M025FR4D	18.0 x 36.0	0.048	0.017	2.870	3.830	0.021
4,700	757D478M025FV4D	18.0 x 40.0	0.040	0.015	3.300	4.280	0.019
35 VOLTS DC WORKING; 45 VOLTS DC SURGE							
120	757D127M035BB4D	8.0 x 12.0	1.073	0.163	0.330	0.658	0.198
150	757D157M035CC4D	10.0 x 13.0	0.617	0.098	0.460	0.907	0.120
180	757D187M035CD4D	10.0 x 16.0	0.386	0.077	0.620	1.090	0.096
330	757D337M035CG4D	10.0 x 20.0	0.257	0.053	0.850	1.470	0.065
560	757D567M035DG4D	12.5 x 20.0	0.210	0.038	1.120	1.810	0.049
680	757D687M035DK4D	12.5 x 25.0	0.140	0.031	1.350	2.180	0.040
1,000	757D108M035DT4D	12.5 x 33.5	0.090	0.020	1.800	2.980	0.026
1,500	757D158M035DS4D	12.5 x 42.5	0.063	0.017	2.400	3.610	0.021
1,200	757D128M035EK4D	16.0 x 25.0	0.097	0.022	2.150	2.820	0.028
1,800	757D188M035EN4D	16.0 x 32.0	0.067	0.019	2.280	3.350	0.024
2,200	757D228M035ER4D	16.0 x 36.0	0.054	0.016	2.650	3.820	0.020
2,700	757D278M035EU4D	16.0 x 40.0	0.048	0.014	2.920	4.240	0.018
2,700	757D278M035FR4D	18.0 x 36.0	0.054	0.017	2.690	3.830	0.021
3,300	757D338M035FV4D	18.0 x 40.0	0.045	0.015	3.090	4.280	0.019

757D TYPICAL PERFORMANCE PROFILES

TEMPERATURE CHARACTERISTICS



757D TYPICAL PERFORMANCE PROFILES

FREQUENCY CHARACTERISTICS

