

CUT35/A

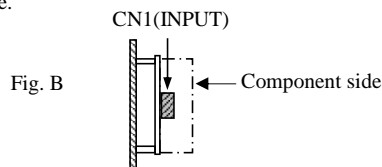
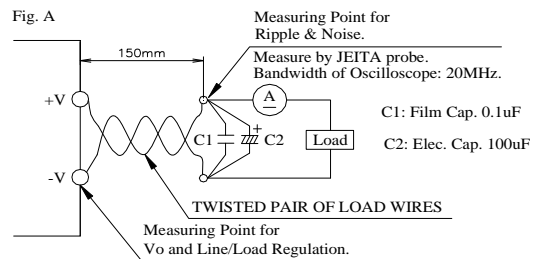
**SPECIFICATIONS**

CA837-01-01/A

ITEMS		MODEL	CUT35-522/A			CUT35-5FF/A			
			CH1	CH2	CH3	CH1	CH2	CH3	
1	Nominal Output Voltage	V	+5	+12	-12	+5	+15	-15	
2	Minimum Output Current	A	0	0	0	0	0	0	
3	Maximum Output Current	A	3.0	1.2	0.85	3.0	1.0	0.65	
4	Typical Output Current	A	3.0	1.2	0.5	3.0	1.0	0.3	
5	Maximum Output Power	W	15.0	14.4	10.2	15.0	15.0	9.75	
6	Maximum Total Allowable Output Power	W	20.4			19.5			
7	Efficiency (Typ)	(*8)	81.0%			82.0%			
8	Input Voltage Range	(*2)	85~265VAC, 47~63Hz or 88-370VDC						
9	Input Current (Typ)	(*1)	1.0A / 0.5A						
10	Inrush Current (Typ)	(*3)	13A / 100VAC, 32A / 230VAC ( cold start, Ta=25°C )						
11	Output Voltage Range	(*12)	V1: +5%, -0% max; V2, V3: Fixed ( ± 5% max)						
12	Maximum Ripple & Noise	0<Ta<70°C, 35-100% Load (*4,11)	mV	120	150	150	120	150	150
		-20<Ta<0°C, 35-100% Load	mV	160	180	180	160	180	180
		-20<Ta<70°C, 0~35% Load	mV	300	400	400	300	400	400
13	Maximum Line Regulation	(*5,11)	mV	50	240	240	50	300	300
14	Maximum Load Regulation	(*6,11)	mV	100	600	600	100	750	750
15	Temperature Coefficient	-	V1 less than 0.02% /°C, V2, V3 less than 0.03% /°C at -20~60°C						
16	Over Current Protection	(*7)	More than 105%						
17	Over Voltage Protection	V	5.7~7.0	13.8~16.8	-	5.7~7.0	17.2~21.0	-	
18	Hold Up Time (Typ)	(*8)	20ms						
19	Leakage Current	(*9)	Less than 0.3mA@50Hz,0.5mA@60Hz at 265VAC. 0.11mA(Typ) at 115VAC / 0.22mA(Typ) @60Hz at 230VAC.						
20	Operating Temperature	(*10)	Convection:-20~60°C (-20~+45°C: 100%, 60°C: 70%)						
21	Operating Humidity	-	5~95 %RH (No dewdrop)						
22	Storage Temperature	-	-30~+85°C						
23	Storage Humidity	-	5%~95%RH (No dewdrop)						
24	Cooling	-	Convection cooling						
25	EMI	-	Designed to meet EN55011/EN55022-B, FCC-B, VCCI-B						
26	Withstand Voltage	-	I/P-O/P: 3kVAC(10mA), I/P-FG: 2.0kVAC(10mA), O/P-FG: 500VAC(20mA), CH1-CH2/CH3: 500VAC(20mA) for 1min.						
27	Isolation Resistance	-	More than 100MΩ at Ta=25°C and 70%RH, Output - FG: 500VDC						
28	Vibration	-	10-55Hz Amplitude ( sweep 1min ) Less than 19.6m/s <sup>2</sup> X, Y, Z 1Hr each						
29	Shock (In package)	-	Less than 196.1m/s <sup>2</sup>						
30	Safety	-	Design to meet IEC60601-1 3rd Edition, IEC60950-1 2nd Edition Design to meet EN60950-1, UL60950-1, CSA60950-1 (cTUVus) Design to meet ANSI/AAMI ES60601-1, EN60601-1 3rd Edition						
31	Immunity	-	Designed to meet IEC61000-4-2(Level 3,4), -3(Level 3), -4(Level 4), -5(Level 3,4), -6(Level 3), -8(Level 4), -11						
32	Weight (Typ)	g	175						
33	Size ( W.H.D.)	mm	63.1 x 36 x 125 (Refer to Outline Drawing)						

**NOTES:**

- \* 1 : At 100/200VAC, Ta=25°C and typical load.
- \* 2 : For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100~240VAC(50/60Hz).
- \* 3 : Not applicable for the in-rush current to Noise Filter for less than 0.2ms.
- \* 4 : Measure with JEITA RC-9131A probe, Bandwidth of scope :20MHz.
- \* 5 : 85~265VAC, typical load.
- \* 6 : No load-typical load, constant input voltage.
- \* 7 : Current limit and Hiccup with automatic recovery. Not operate at over load or dead short condition for more than 30seconds.
- \* 8 : At 200VAC, nominal output voltage and typical load.
- \* 9 : Measured by the each measuring method of UL, CSA, EN and DENAN.
- \*10: Ratings - Derating at standard mounting (Fig. B).
  - Load (%) is percent of maximum output power or typical load, whichever is greater.
  - As for other mountings, refer to derating curve (CA837-01-02/A).
  - When forced air cooling, refer to derating curve (CA837-01-02/A).
  - When ambient temperature less is than -10°C, refer to derating curve (CA837-01-03/A).
- \*11: Please refer to Fig. A (pending) for measurement determination of line & load regulation and output ripple voltage.
- \*12: No load-typical load.



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**OUTPUT DERATING**

CA837-01-02/A

\*COOLING: CONVECTION COOLING

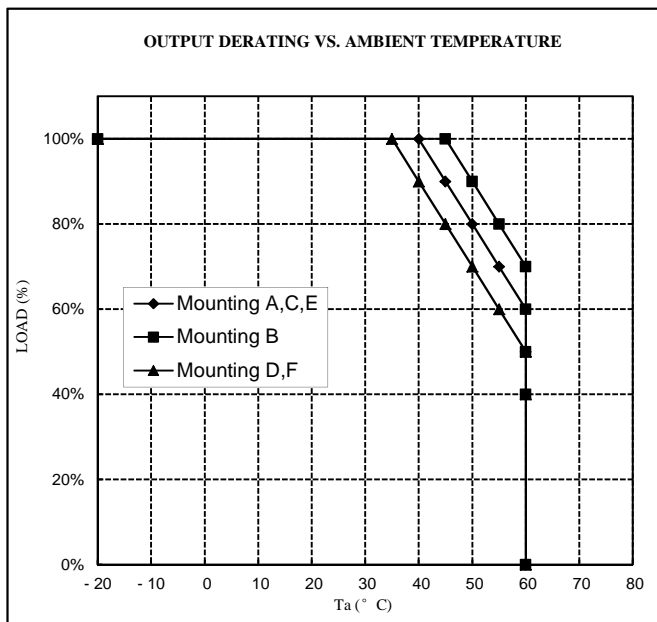
Ta (°C)	LOADING CONDITION(%)		
	Mounting A,C,E	Mounting B	Mounting D,F
-20	100%	100%	100%
35	100%	100%	100%
40	100%	100%	90%
45	90%	100%	80%
50	80%	90%	70%
55	70%	80%	60%
60	60%	70%	50%

\*COOLING: FORCED AIR COOLING

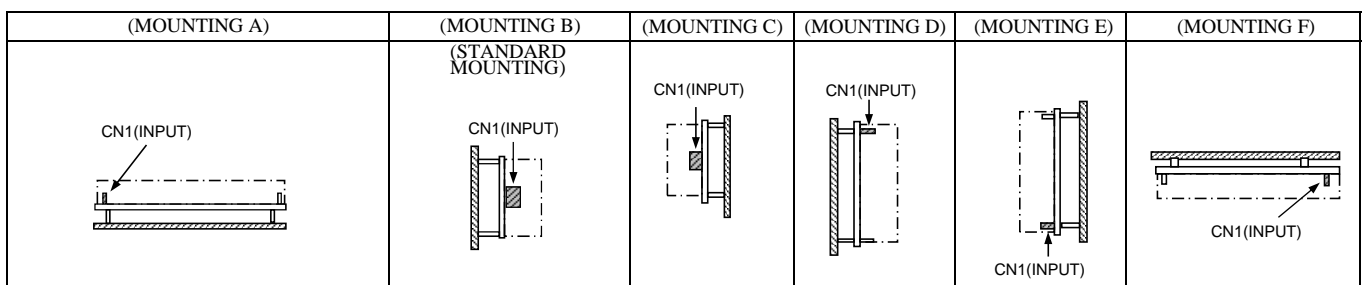
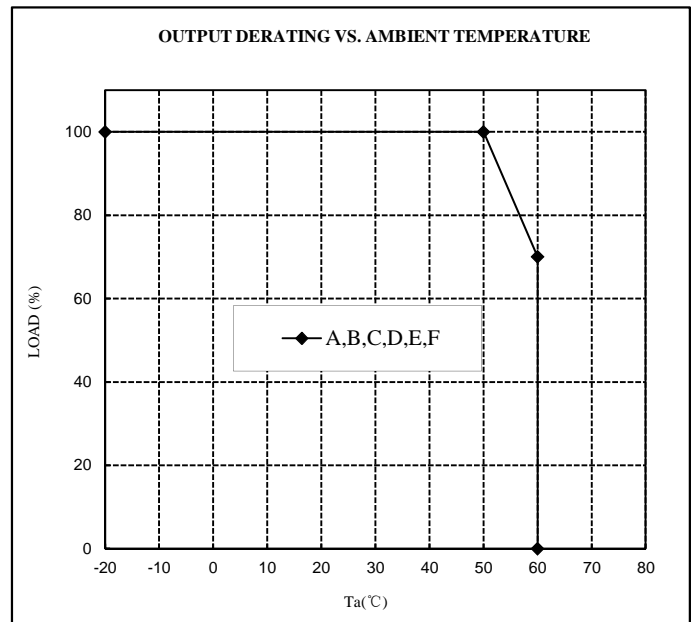
Ta (°C)	LOADING CONDITION(%)
	All Mounting (A,B,C,D,E,F)
-20~50	100
60	70

Air Velocity  $\geq 0.7\text{m/s}$ : Air must flow through component side.

\*COOLING: CONVECTION COOLING



\*COOLING: FORCED AIR COOLING



**CUT35/A**

**OUTPUT DERATING**

CA837-01-03/A

Output derating for start up when ambient temperature is less than -10°C

INPUT VOLTAGE	LOADING CONDITION(%)
	All Mounting (A,B,C,D,E,F)
85VAC	60
105-265VAC/105-370VDC	100

