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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

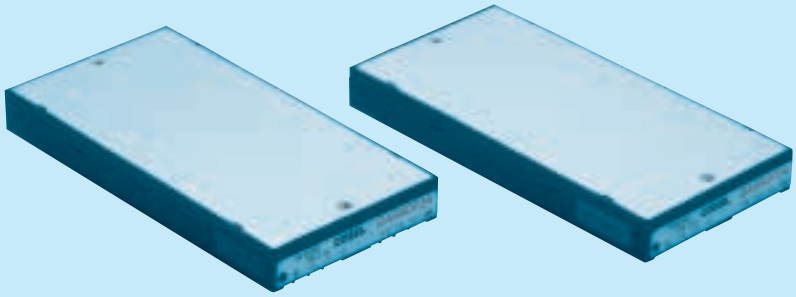
COSEL DC-DC Converters Power Module type

DAS50

Ordering information

DA ① S ② 50 ③ □ ④ 05 ⑤

①Series name
②Single output
③Output wattage
④Input voltage
F :DC88 - 370V
48 :DC36 - 72V
⑤Output voltage



MODEL	DAS50F05	DAS50F12	DAS50F24	DAS504805	DAS504812
MAX OUTPUT WATTAGE[W]	50	50.4	50.4	50	50.4
DC OUTPUT	5V 10A	12V 4.2A	24V 2.1A	5V 10A	12V 4.2A

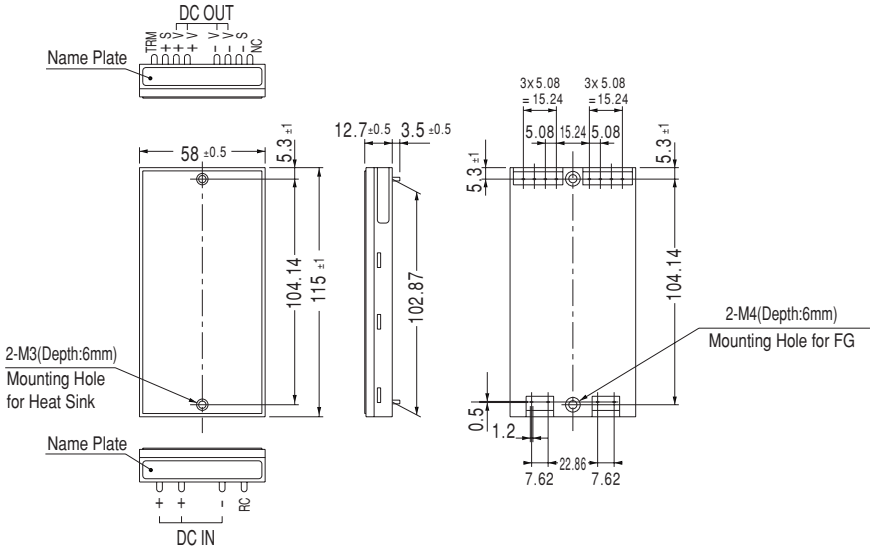
SPECIFICATIONS

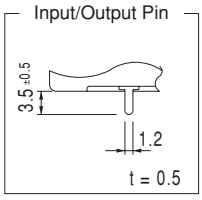
	MODEL		DAS50F05	DAS50F12	DAS50F24	DAS504805	DAS504812
INPUT	VOLTAGE[V]		DC88 - 370			DC36 - 72	
	CURRENT[A]		0.5typ (DCIN 130V, Io=100%) 0.25typ (DCIN 260V, Io=100%)			1.30typ (DCIN 48V, Io=100%)	1.28typ (DCIN 48V, Io=100%)
	EFFICIENCY[%]		82typ	82typ	82typ	80typ	82typ
	LEAKAGE CURRENT[mA]		0.3max (By UL, CSA, VDE and DEN-AN)				
OUTPUT	VOLTAGE[V]		5	12	24	5	12
	CURRENT[A]		10	4.2	2.1	10	4.2
	LINE REGULATION[mV]		20max	48max	96max	20max	48max
	LOAD REGULATION[mV]		40max	100max	150max	40max	100max
	RIPPLE[mVp-p]	0 to +85℃ *1	80max	120max	120max	80max	120max
		-10 - 0℃ *1	140max	160max	160max	140max	160max
	RIPPLE NOISE[mVp-p]	0 to +85℃ *1	150max	200max	200max	150max	200max
		-10 - 0℃ *1	190max	230max	230max	190max	230max
	TEMPERATURE REGULATION[mV]	0 to +85℃	85max	204max	408max	85max	210max
		-10 to +85℃	95max	228max	456max	95max	230max
	DRIFT[mV]	*2	20max	48max	96max	20max	48max
	START-UP TIME[ms]		200max (DCIN 88V, Io=100%)			200max (DCIN 36V, Io=100%)	
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Fixed (TRM pin open)±10% adjustable by external VR				
	OUTPUT VOLTAGE SETTING[V]		4.85 - 5.35	11.4 - 12.6	22.8 - 25.2	4.85 - 5.35	11.4 - 12.6
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically				
	OVERVOLTAGE PROTECTION		Works at 115 - 140% of rating				
	REMOTE SENSING		Provided				
	REMOTE ON/OFF		Between RC and -side of input:short - 1.2V ・・・output ON, 2.4 - 5.5V(or open) ・・・output OFF, Compatible TTL				
ISOLATION	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)			AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)	
	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)			AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)	
	OUTPUT-FG		AC500V 1minute, Cutoff current = 100mA max, DC500V 50MΩ min (At Room Temperature)				
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-10 to +85℃ (Aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max				
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max				
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis				
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis				
SAFETY	AGENCY APPROVALS		UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with DEN-AN			Complies with UL60950-1, CSA C22.2 No.60950-1 and EN60950-1	
OTHERS	CASE SIZE/WEIGHT		58×12.7×115mm (W×H×D) / 120g max				
	COOLING METHOD		Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)				

*1 Measured by attaching the electrolytic capacitor of 220μF at output.
*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
* Parallel operation with other model is not possible.

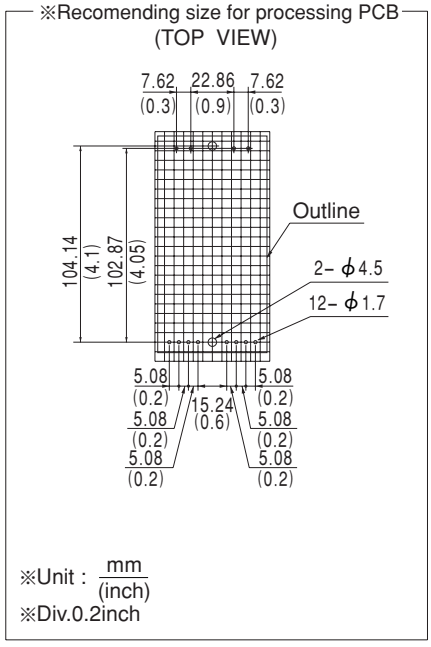
DAS

External view



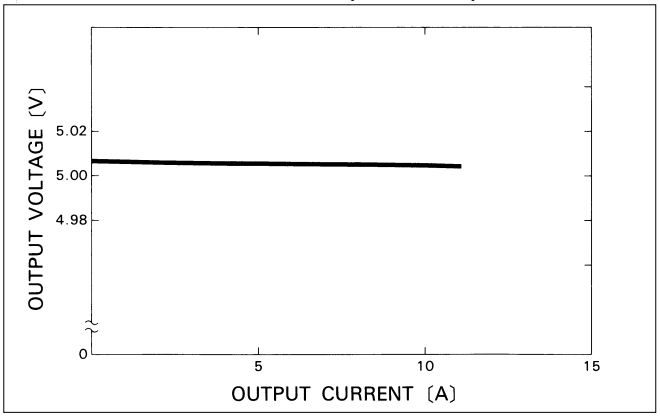


※Weight: 120g or less.
※Tolerance: ± 0.3
※Case: PBT
※Base Plate: Aluminum
※Dimensions in mm.
※Mounting torque
• Mounting Hole for Heat Sink:
0.4N·m (5.0kgf·cm) max
• Mounting Hole for FG:
1.2N·m (12.8kgf·cm) max

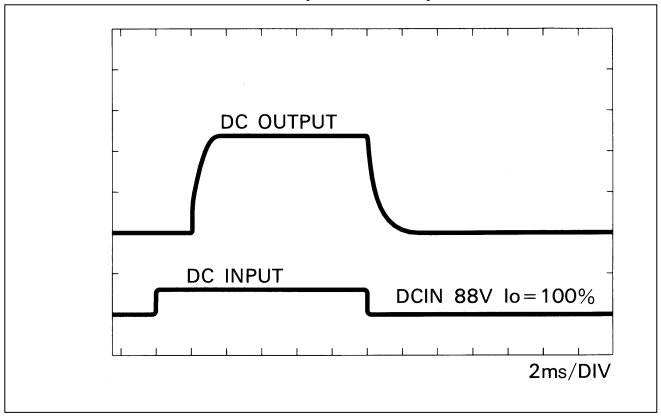


Performance data

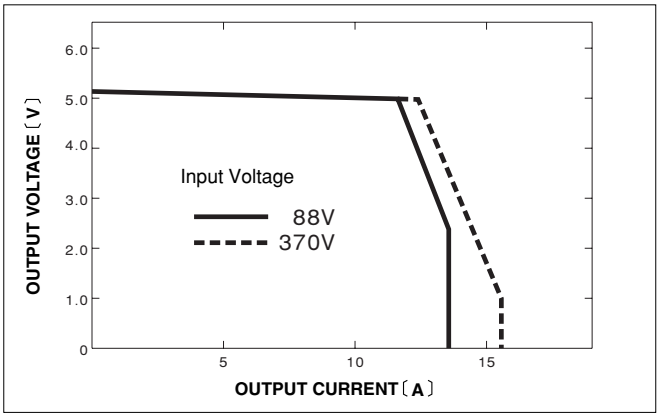
■STATIC CHARACTERISTICS (DAS50F05)



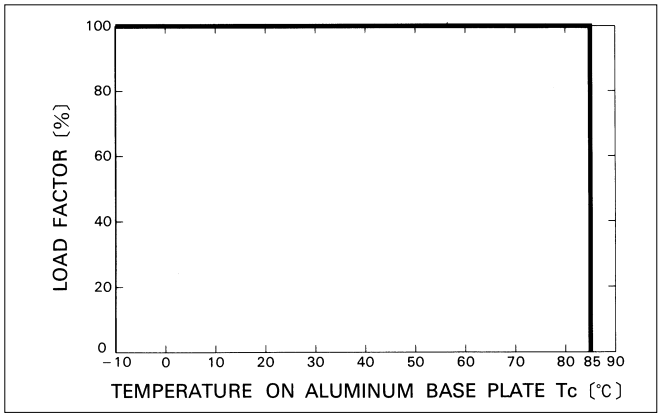
■RISE TIME & FALL TIME (DAS50F05)



■OVERCURRENT CHARACTERISTICS (DAS50F05)



■DERATING CURVE



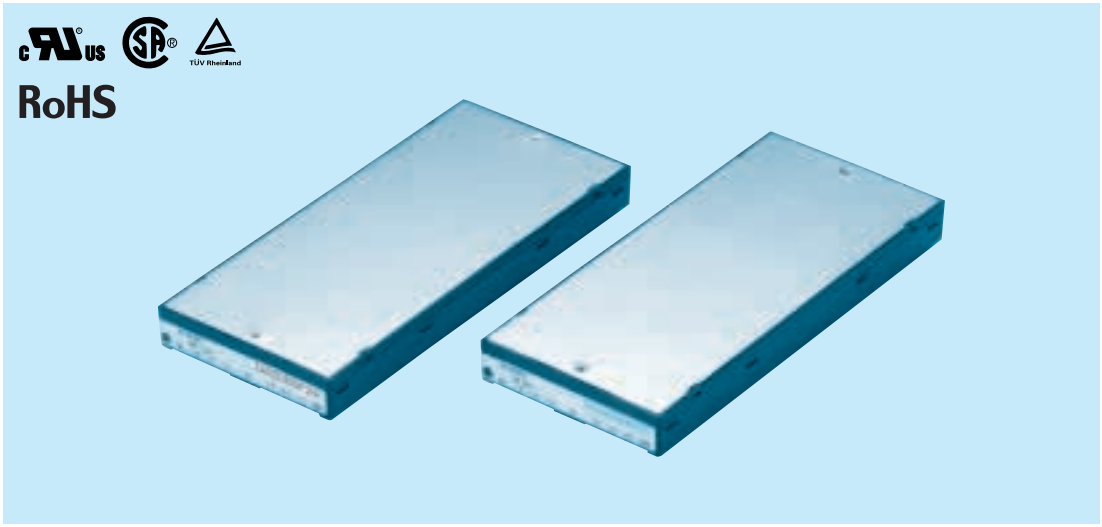
DAS

COSEL DC-DC Converters Power Module type

DAS100

Ordering information

DA ① S ② 100 ③ □ ④ 05 ⑤



①Series name
②Single output
③Output wattage
④Input voltage
F :DC88 - 370V
48 :DC36 - 72V
⑤Output voltage

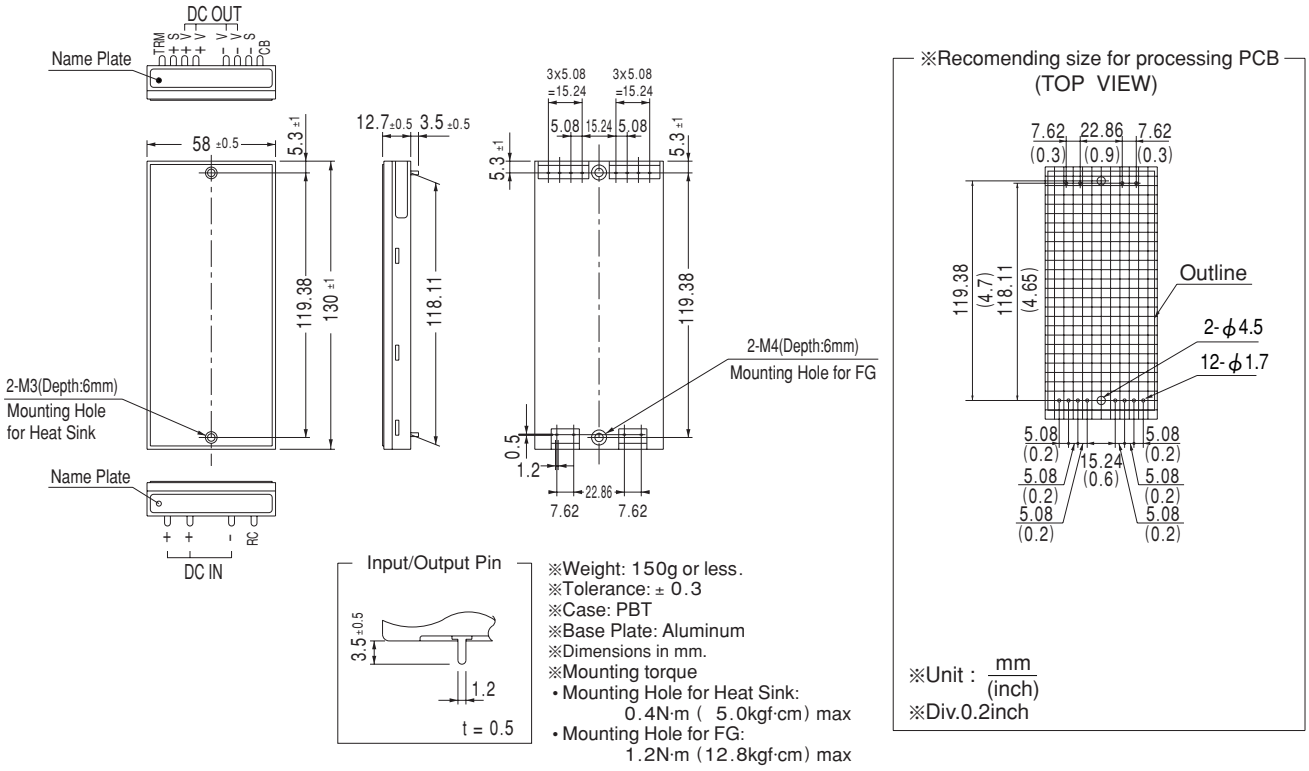
MODEL	DAS100F05	DAS100F12	DAS100F24	DAS1004805	DAS1004812
MAX OUTPUT WATTAGE[W]	100	102	100.8	100	102
DC OUTPUT	5V 20A	12V 8.5A	24V 4.2A	5V 20A	12V 8.5A

SPECIFICATIONS

	MODEL		DAS100F05	DAS100F12	DAS100F24	DAS1004805	DAS1004812
INPUT	VOLTAGE[V]		DC88 - 370			DC36 - 72	
	CURRENT[A]		1.0typ (DCIN 130V, Io=100%) 0.5typ (DCIN 260V, Io=100%)			2.60typ (DCIN 48V, Io=100%)	2.59typ (DCIN 48V, Io=100%)
	EFFICIENCY[%]		82typ	82typ	82typ	80typ	82typ
	LEAKAGE CURRENT[mA]		0.3max (By UL, CSA, VDE and DEN-AN)				
OUTPUT	VOLTAGE[V]		5	12	24	5	12
	CURRENT[A]		20	8.5	4.2	20	8.5
	LINE REGULATION[mV]		20max	48max	96max	20max	48max
	LOAD REGULATION[mV]		40max	100max	150max	40max	100max
	RIPPLE[mVp-p]	0 to +85℃ *1	80max	120max	120max	80max	120max
		-10 - 0℃ *1	140max	160max	160max	140max	160max
	RIPPLE NOISE[mVp-p]	0 to +85℃ *1	150max	200max	200max	150max	200max
		-10 - 0℃ *1	190max	230max	230max	190max	230max
	TEMPERATURE REGULATION[mV]	0 to +85℃	85max	204max	408max	85max	210max
		-10 to +85℃	95max	228max	456max	95max	230max
	DRIFT[mV]	*2	20max	48max	96max	20max	48max
	START-UP TIME[ms]		200max (DCIN 88V, Io=100%)			200max (DCIN 36V, Io=100%)	
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		Fixed (TRM pin open)±10% adjustable by external VR				
	OUTPUT VOLTAGE SETTING[V]		4.85 - 5.35	11.4 - 12.6	22.8 - 25.2	4.85 - 5.35	11.4 - 12.6
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically				
	OVERVOLTAGE PROTECTION		Works at 115 - 140% of rating				
	REMOTE SENSING		Provided				
	REMOTE ON/OFF		Between RC and -side of input:short - 1.2V ・・・output ON, 2.4 - 5.5V(or open) ・・・output OFF, Compatible TTL				
ISOLATION	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)			AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)	
	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)			AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)	
	OUTPUT-FG		AC500V 1minute, Cutoff current = 100mA max, DC500V 50MΩ min (At Room Temperature)				
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-10 to +85℃ (Aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max				
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max				
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis				
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis				
SAFETY	AGENCY APPROVALS		UL60950-1, EN60950-1, CSA C22.2 No.60950-1 Complies with DEN-AN			Complies with UL60950-1, CSA C22.2 No.60950-1 and EN60950-1	
OTHERS	CASE SIZE/WEIGHT		58×12.7×130mm (W×H×D) / 150g max				
	COOLING METHOD		Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)				

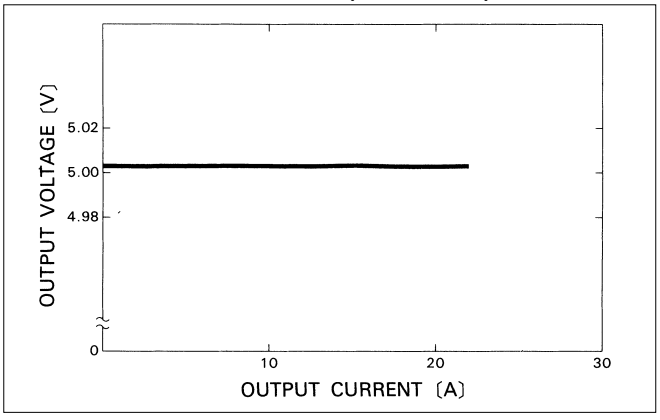
*1 Measured by attaching the electrolytic capacitor of 220μF at output.
*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃,with the input voltage held constant at the rated input/output.
* Parallel operation with other model is not possible.

External view

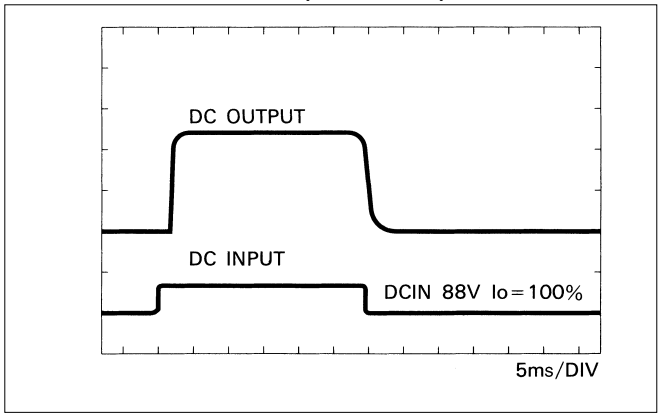


Performance data

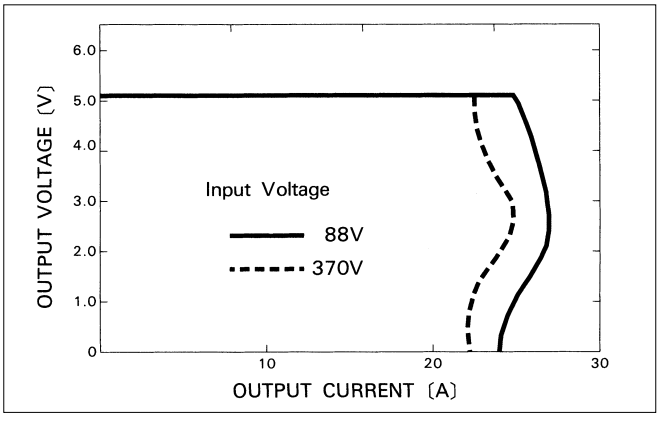
■STATIC CHARACTERISTICS (DAS100F05)



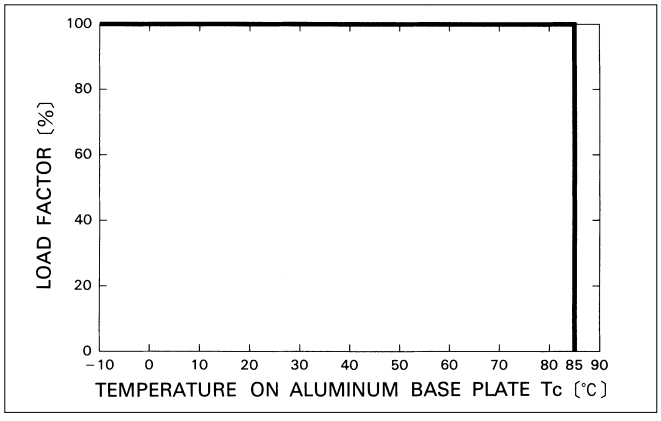
■RISE TIME & FALL TIME (DAS100F05)



■OVERCURRENT CHARACTERISTICS (DAS100F05)



■DERATING CURVE



DAS