DC-DC Converter Short Form

MPDRX002S (Ultra High Speed Response POL)

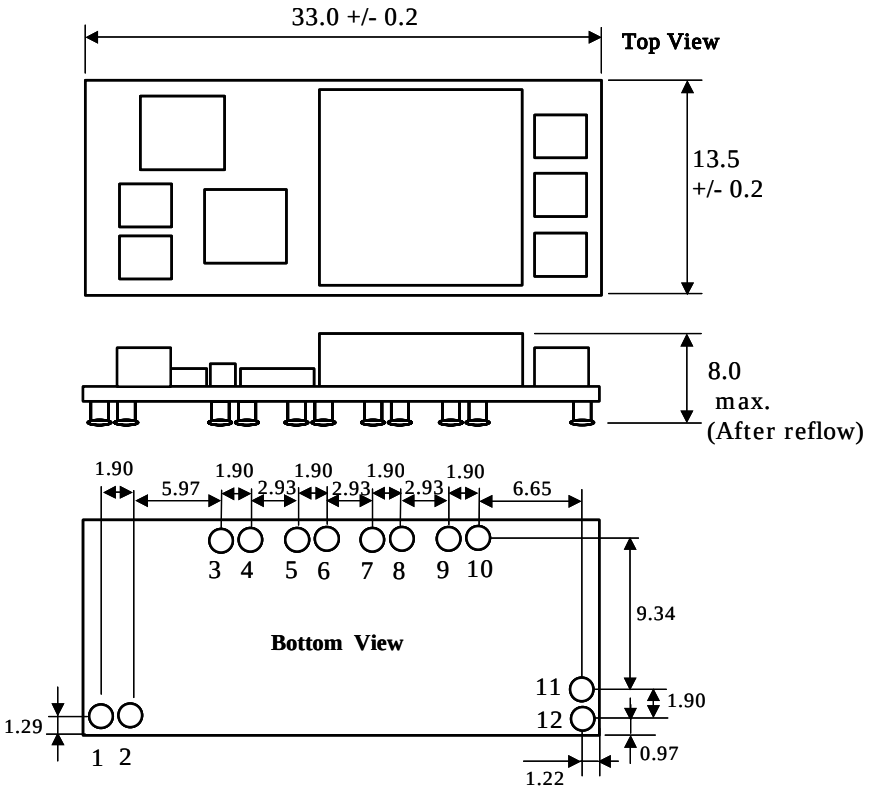
■ Features

- 3.0-5.5V Input Voltage
- 16Amp. Output Current
- Ultra High Speed Response
- Wide Output Voltage (0.8-1.8V)
- On/Off Control Function
- Short Circuit Protection
- Over Temperature Protection
- Austin Lynx Pin Compatible

■ GENERAL SPECIFICATIONS (Ta=25ºC)

Item	Symbol	Condition	MIN.	TYP.	MAX.	UNIT
Input Voltage	Vin		3.0	3.3	5.5	V
Output Voltage	Vout		0.80		1.80	V
Output Current	Iout		0		16	A
Ripple Voltage	Vrip	Vin=3.3V,Vo=1.8V,Io=16A.		15	40	mVpp
Efficiency	EFF	Vin=3.3V,Vo=1.8V,Io=16A.		90		%

■ DIMENSIONS AND PIN ASSIGN



Pin No.	Signal
1,2.	Vin
3,4.	GND
5,6.	Vout
7,8.	TRIM
9.10.	SENSE
11,12.	ON/OFF

⚠ **Note:**

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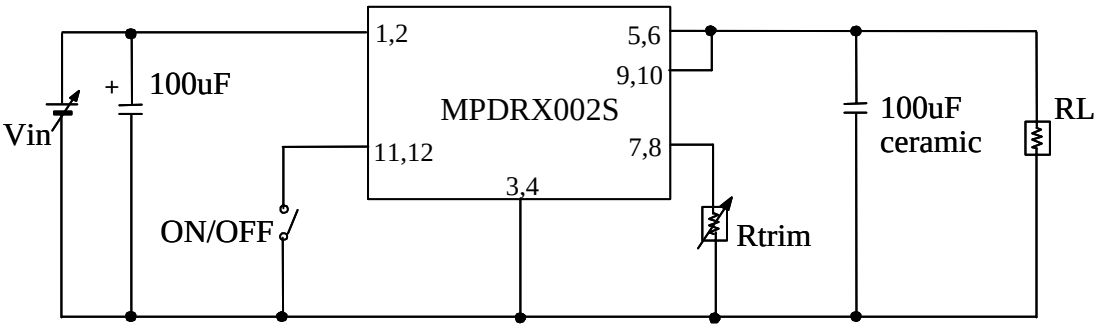
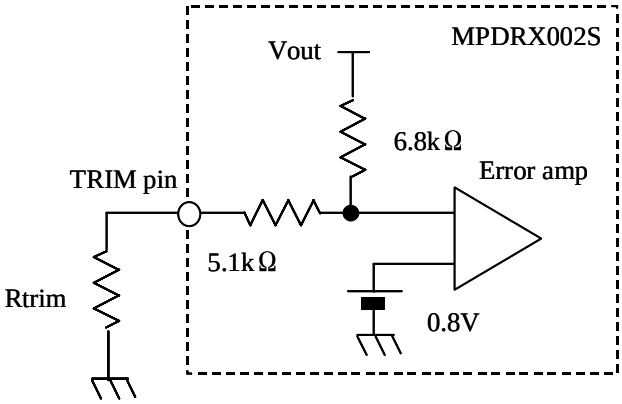
2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

■ TEST CIRCUIT



■ OUTPUT VOLTAGE ADJUSTMENT

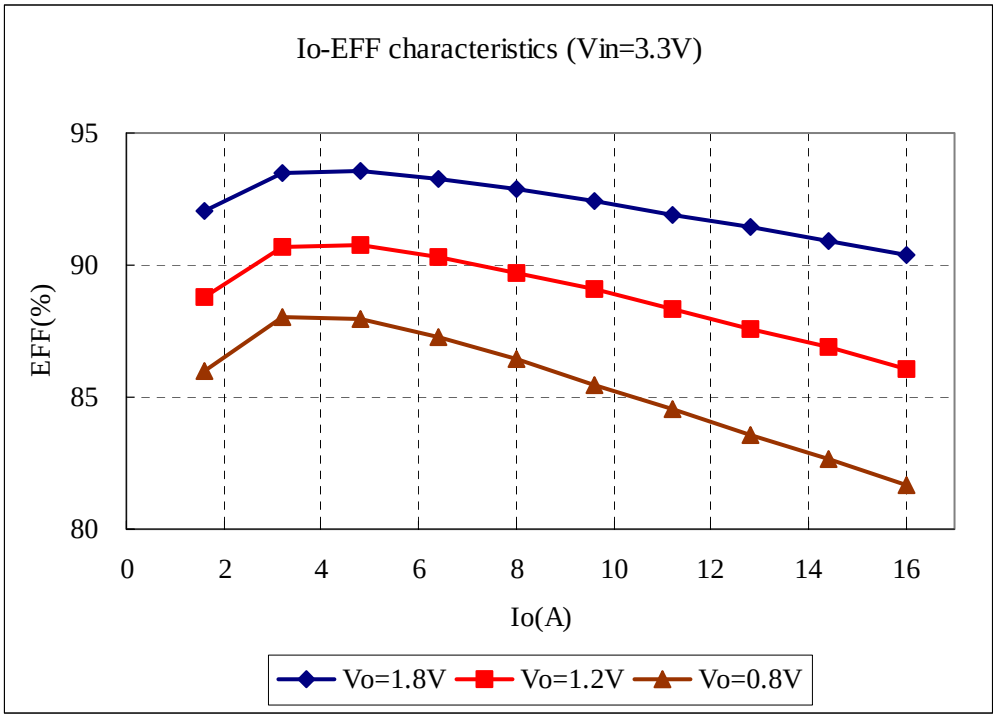


$$Rtrim = \frac{5.44}{Vout[V] - 0.8[V]} - 5.1[k\Omega]$$

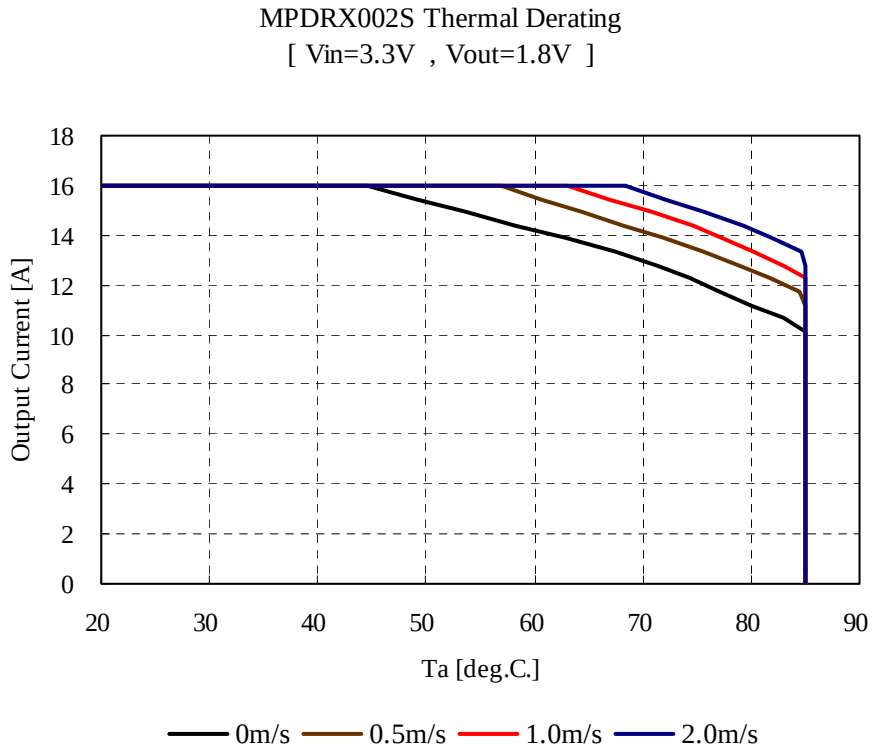
<RTRIM CALCULATION EXAMPLE>

Vout(V)	Calculated Rtrim(ohm)	Rtrim example(ohm)
1.8	340	340 + 10
1.5	2671	2.4k + 270
1.2	8500	8.1k + 390
1.0	22100	22k + 100
0.8	∞	Open

■ EFFICIENCY CHARACTERISTICS



■ THERMAL DERATING



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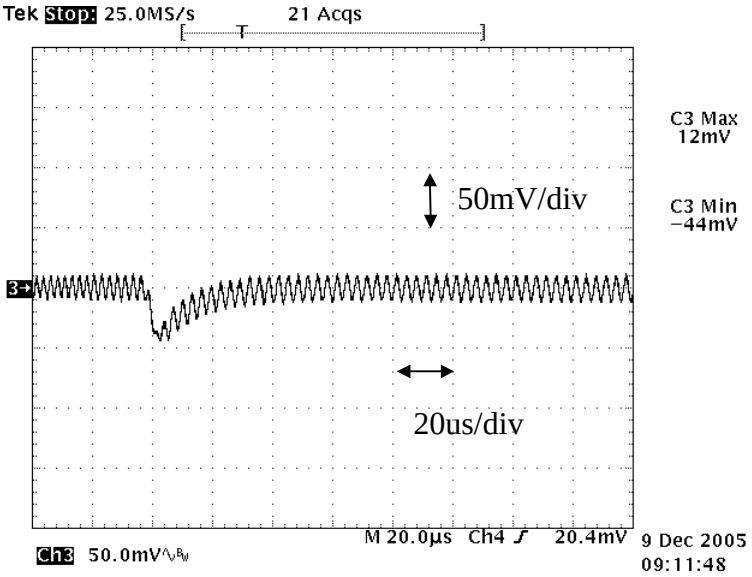
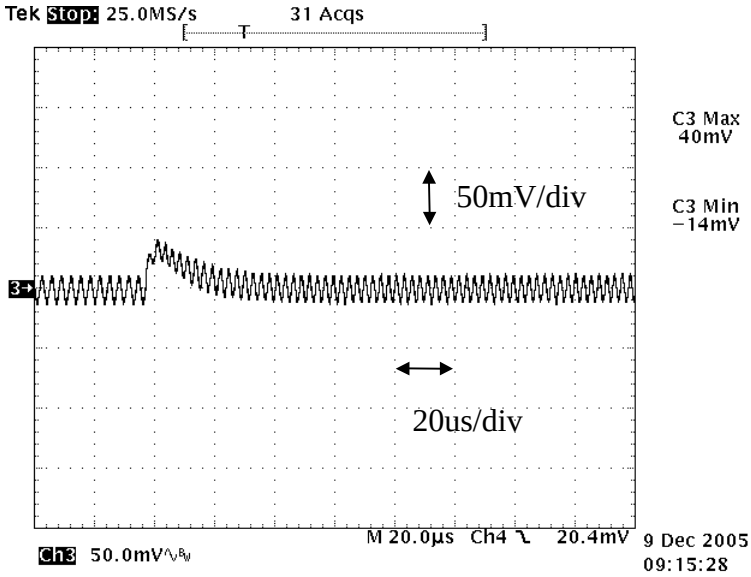
■ TRANSIENT RESPONSE

Vin=3.3V, Vo=1.8V, Io=8A<-->16A
di/dt=2A/µs, Cout=100µF



Output Voltage



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