

# DC-DC Converter Short Form

## MPDRX004S (Ultra High Speed Response POL)

### ■ Features

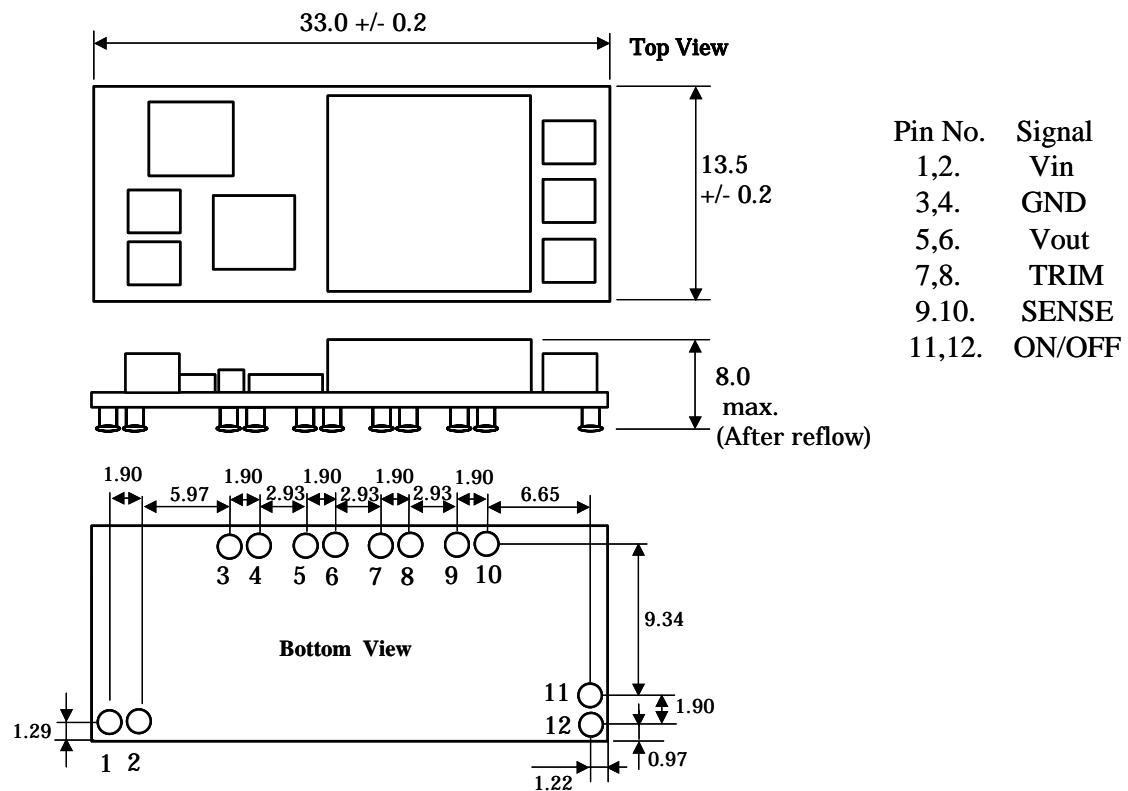
- 7-14V Input Voltage
- 12Amp. Output Current
- Ultra High Speed Response
- Wide Output Voltage (0.8-1.8V)
- On/Off Control Function
- Short Circuit Protection
- Over Temperature Protection
- Austin Lynx Pin Compatible



### ■ GENERAL SPECIFICATIONS (Ta=25°C)

Item	Symbol	Condition	MIN.	TYP.	MAX.	UNIT
Input Voltage	Vin		7	12	14	V
Output Voltage	Vout		0.80		1.80	V
Output Current	Iout		0		12	A
Ripple Voltage	Vrip	Vin=12V, Vo=1.8V, Io=12A.		15	40	mVpp
Efficiency	EFF	Vin=12V, Vo=1.8V, Io=12A.		88		%

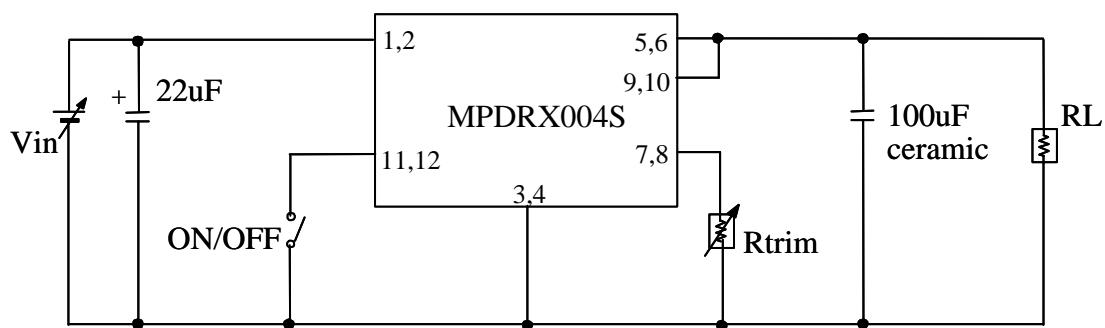
### ■ DIMENSIONS AND PIN ASSIGN



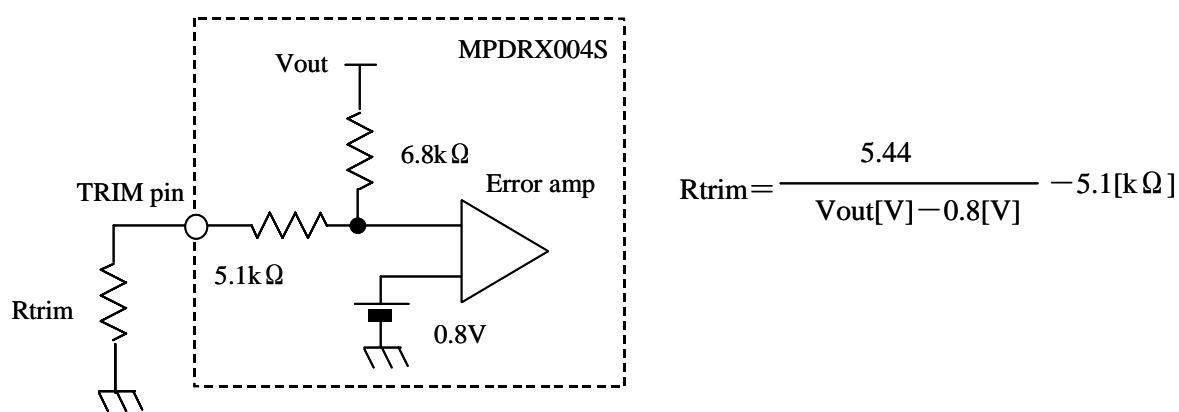
#### ⚠ Note:

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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



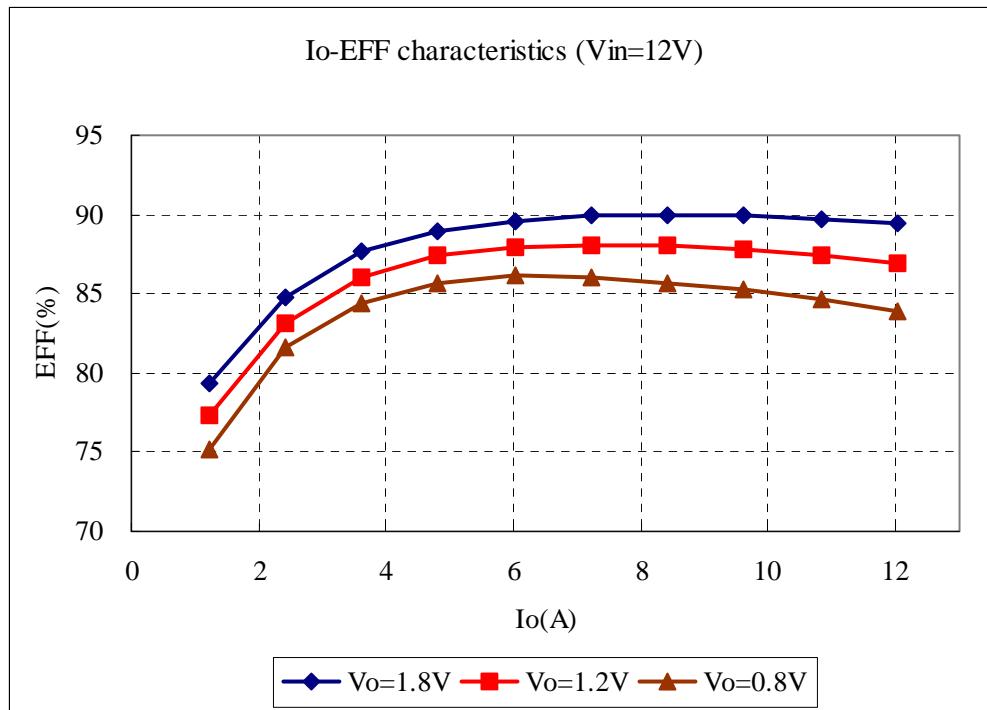
### <RTRIM CALCULATION EXAMPLE>

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	$\infty$	Open

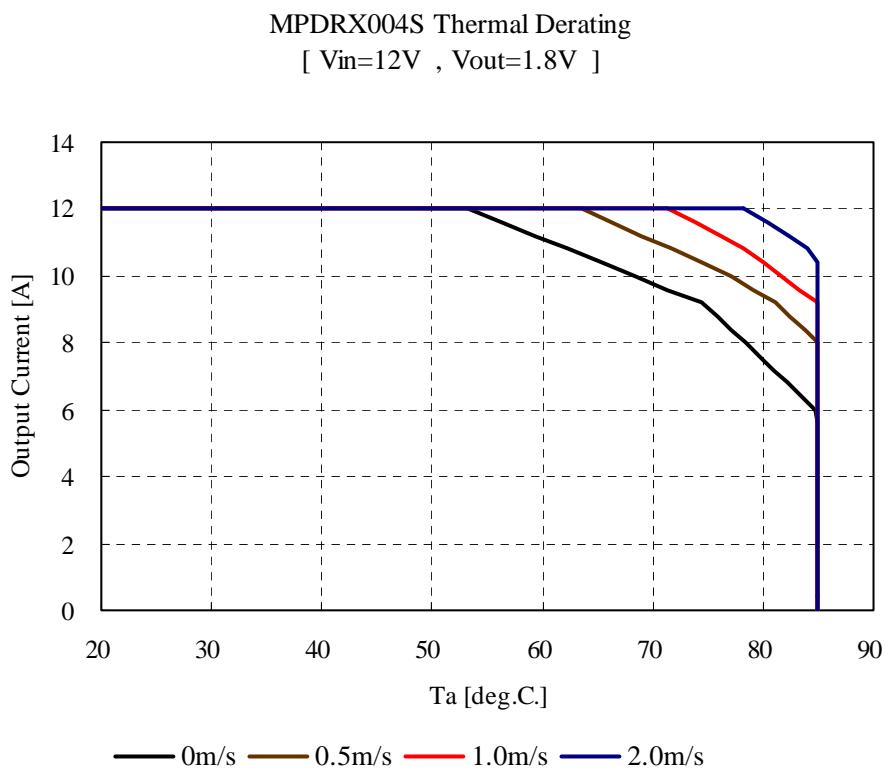
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## ■ EFFICIENCY CHARACTERISTICS



## ■ THERMAL DERATING

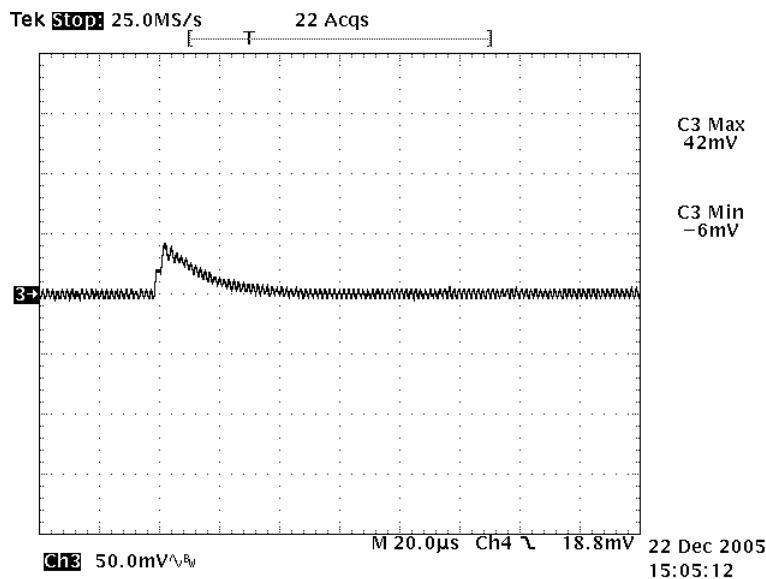
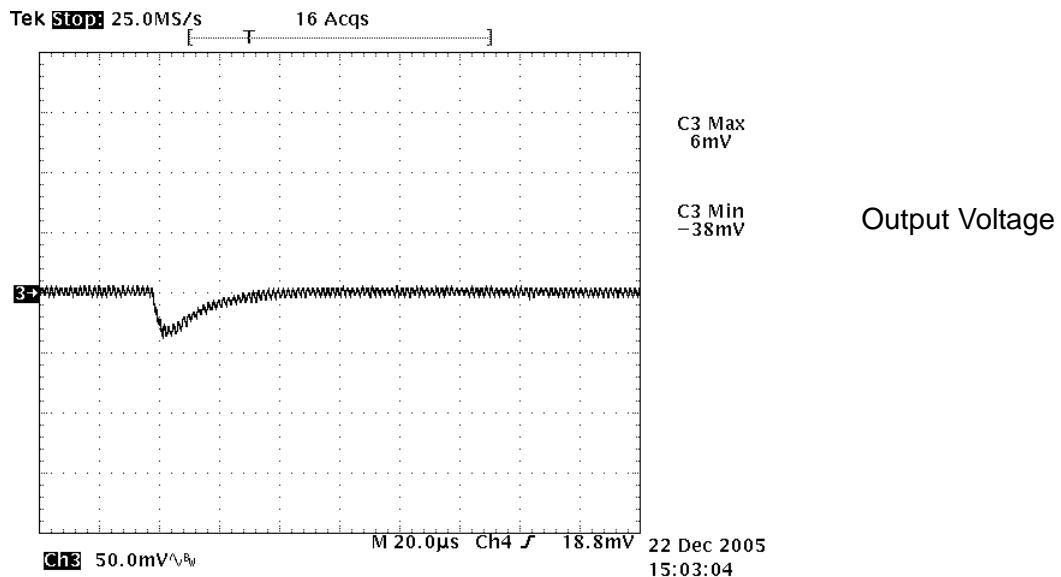


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## ■ TRANSIENT RESPONSE

$V_{in}=12V$ ,  $V_o=1.8V$ ,  $I_o=6A \leftrightarrow 12A$   
 $di/dt=2A/\mu s$ ,  $C_{out}=100\mu F$



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