

/ Descriptions

BRCO2600AME CMOS

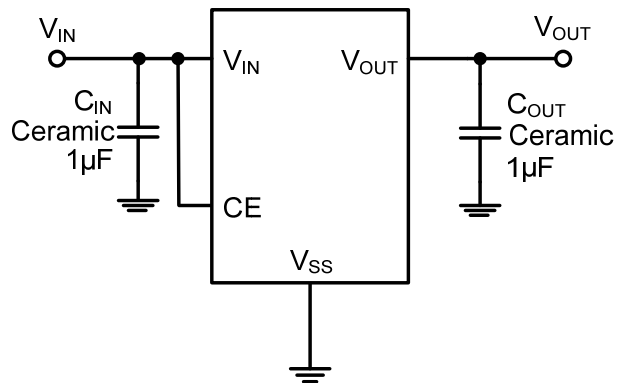
/ Features

- ◆ 40uVrms 10Hz~100kHz
- ◆ 80mV@100mA
- ◆ 300mA
- ◆ 35uA
- ◆ 85dB@1kHz
- ◆
- ◆
- ◆ 1.5V~6.0V
- ◆ 1.2V~5.0V
- ◆ ±2%
- ◆
- ◆ TTL-
- ◆ SOT23-5

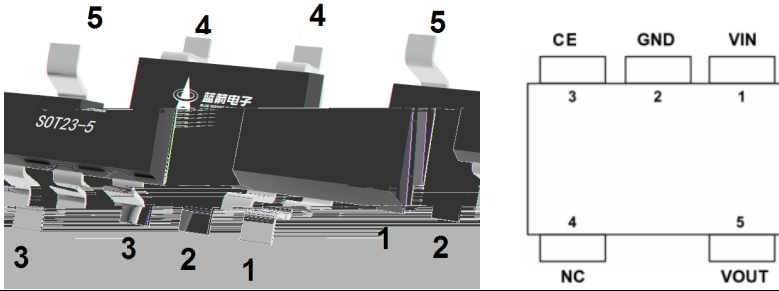
/ Applications

- ◆
- ◆
- ◆
- ◆
- ◆

/ Typical Application



/ Pinning



1	VIN		4	NC	
2	GND		5	VOUT	
3	CE				

& / Part Number & Marking

	(V)	
BRCO2600AME-1.2	1.2	
BRCO2600AME-1.5	1.5	
BRCO2600AME-1.8	1.8	
BRCO2600AME-2.5	2.5	
BRCO2600AME-2.8	2.8	
BRCO2600AME-3.0	3.0	
BRCO2600AME-3.3	3.3	

/ Absolute Maximum Ratings(Ta=25)

	V _{IN}	-0.3 to 7	V
	V _{OUT}	-0.3 to (V _{IN} +0.3)	V
	I _{OUT}	600	mA
	P _D	0.4	W
	T _{stg}	-65 to +150	°C
	T _j	-40 to +150	°C
	T _A	-40 to +85	°C
	10s	T _{sold}	260 °C
ESD	- HBM	≥2	KV
	- MM	≥200	V

/ Electrical Characteristics($T_A=25$, $V_{IN}=V_{OUT}+1V$, $C_{IN}=C_{OUT}=1\mu F$, unless otherwise specified)

	V_{IN}	-	1.5		6.0	V
1	$V_{OUT\ E}$	$I_{OUT}=1mA$	$V_{OUT\ S} * 0.98$	$V_{OUT\ S}$	$V_{OUT\ S} * 1.02$	V
	I_{SS}	$I_{OUT}=0mA$		35	75	μA
	I_{SHDN}	$V_{CE}=0V$		0.1	1	μA
	I_{OUT}		300			mA
	I_{LIM}	$V_{OUT} = 90\%$ $V_{OUT(Normal)}$	500	600		mA
2	V_{drop}	$I_{OUT}=100mA$ $V_{OUT(S)} \geq 3.3V$		80		mV
	ΔV_{load}	$V_{IN}=V_{OUT(S)} + 1V$ $1mA \leq I_{OUT} \leq 100mA$		10		mV
	$\frac{\Delta V_{OUT}}{(\Delta V_{IN} * V_{OUT})}$	$I_{OUT}=10mA$ $V_{OUT(S)} + 1V \leq V_{IN} \leq 6V$		0.01	0.2	%/V
	$\frac{\Delta V_{OUT}}{(\Delta T_A * V_{OUT})}$	$I_{OUT}=10mA$ $-40^\circ C \leq T_A \leq \pm 85^\circ C$		50		ppm/ °C
	I_{short}	$V_{OUT}=V_{SS}$		120		mA
	PSRR	$I_{OUT}=50mA, f=100Hz$		78		dB
		$I_{OUT}=50mA, f=1kHz$		85		
		$I_{OUT}=50mA, f=10kHz$		75		
CE	V_{CE_H}		1.5		V_{IN}	V
CE	V_{CE_L}				0.3	V
	T_{SD}			160		°C
	ΔT_{SD}			20		°C
C_{OUT}	$R_{DISCHRG}$	$V_{IN} = 5V,$ $V_{OUT} = 3.0V, V_{CE} = V_{SS}$		100		Ω

(1) $V_{OUT\ E}$

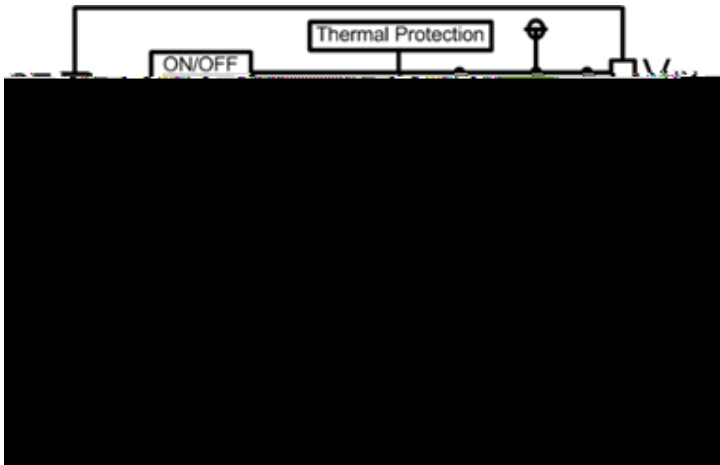
$V_{OUT\ S}$

(2)

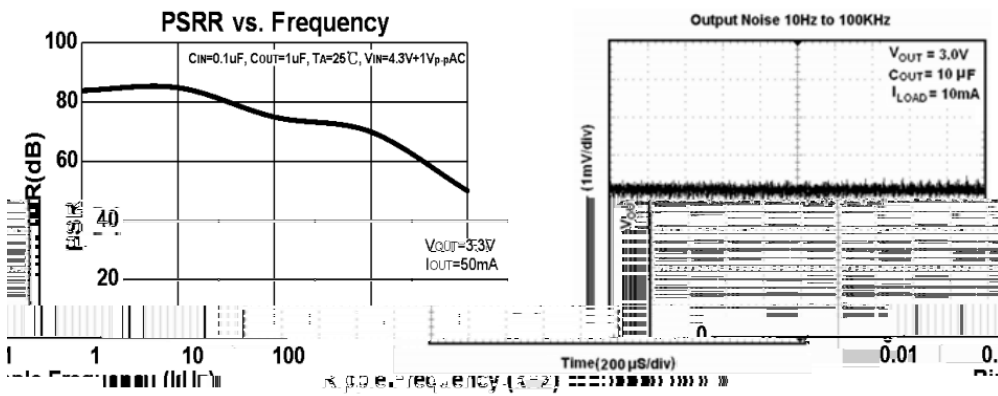
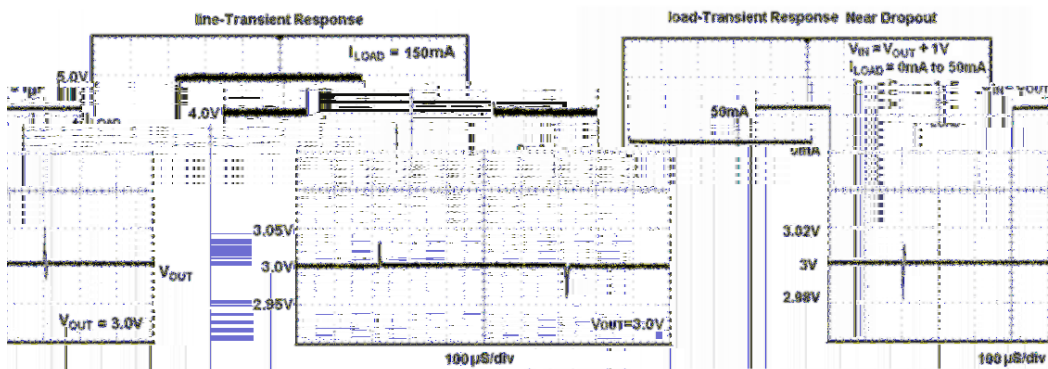
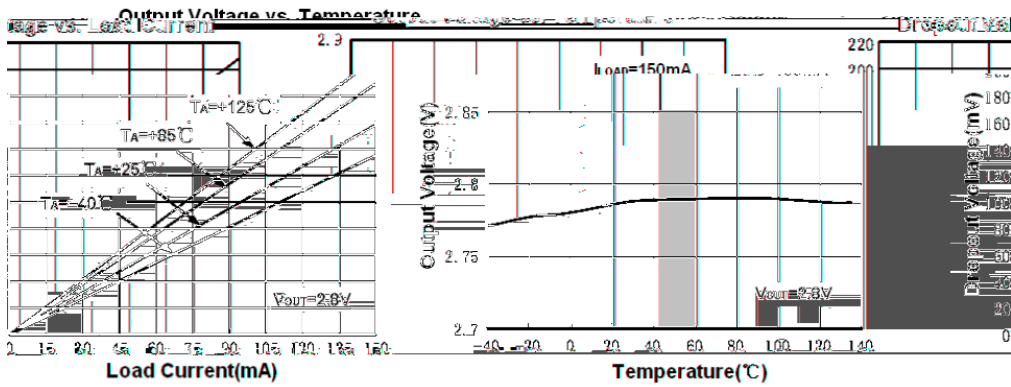
V_{OUT}

$V_{OUT} * 98\%$

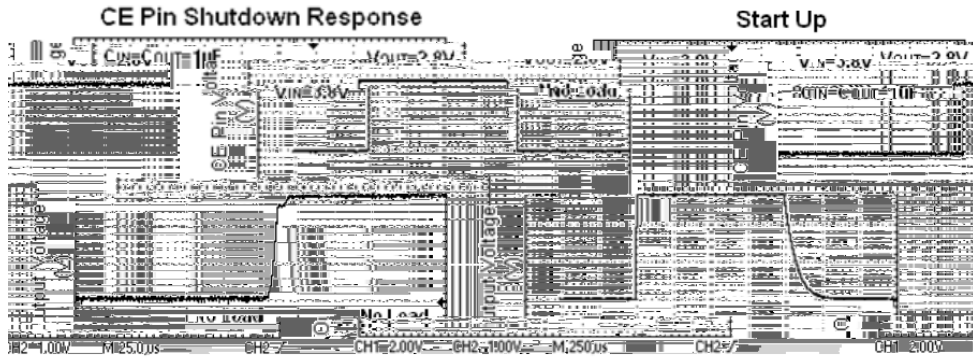
/ Functionl Block Diagram



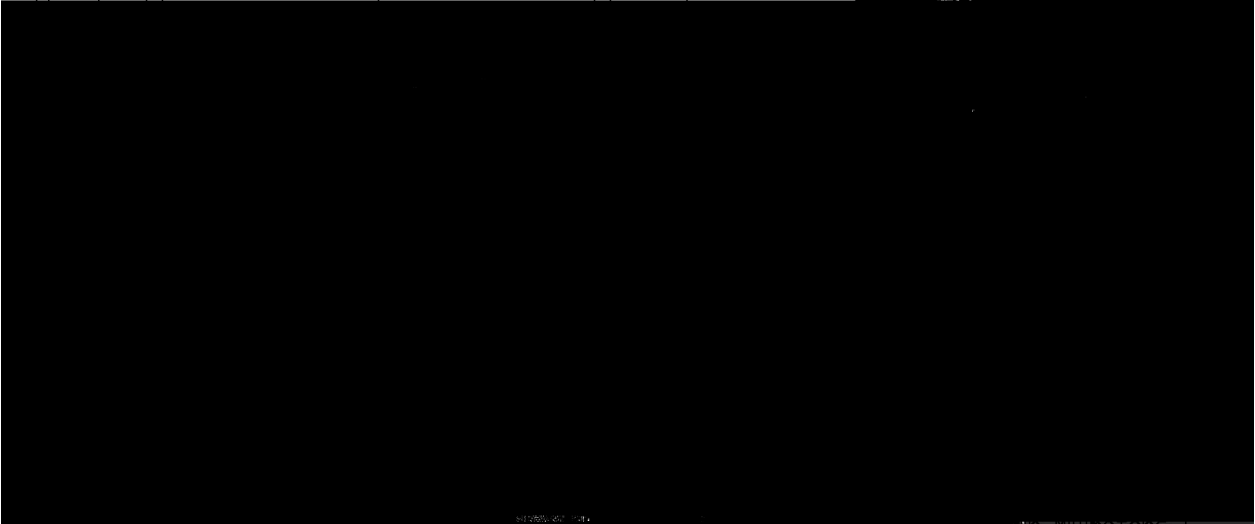
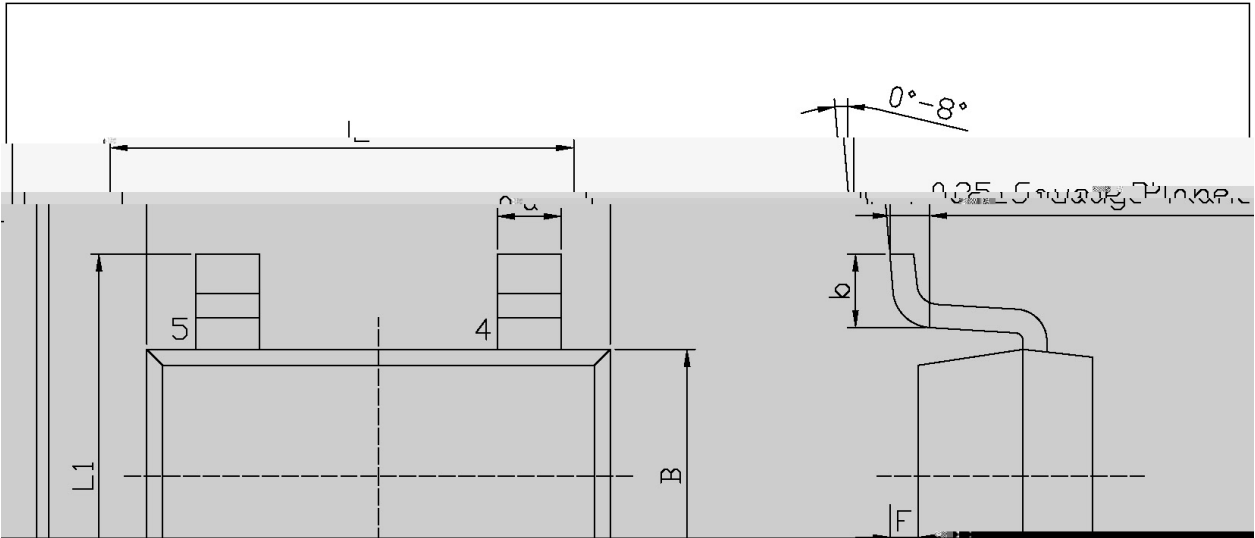
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Package Dimensions



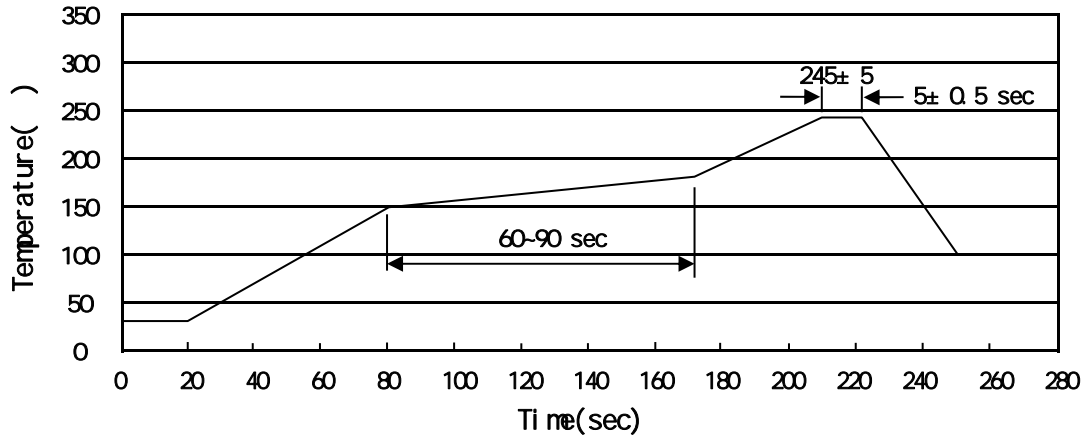
Symbol	Dimensions in millimeters		Symbol	Dimensions in millimeters	
	Min	Max		Min	Max
L	2.82	3.02	E1	0.85	1.05
B	1.50	1.70	a	0.35	0.50
C	0.90	1.30	c	0.10	0.20
E	1.80	2.00	F	0	0.15

BRCO2600AME

Rev.A Oct.-2024

DATA SHEET

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-------|----------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5 | sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
SOT23-5/6	3,000	10	30,000	4	120,000	7" x8	210x205x205	445x435x230

/ Notices