

/ Descriptions

BRCO2600AME CMOS

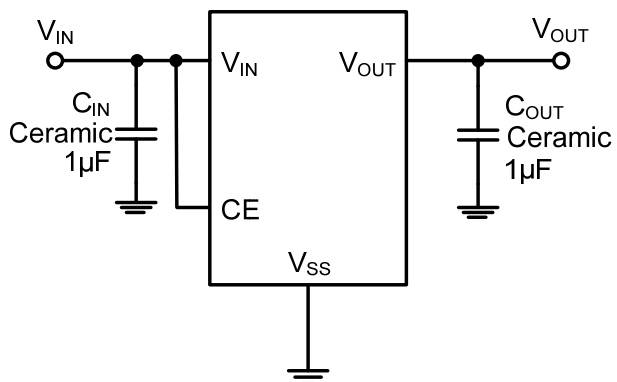
/ Features

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

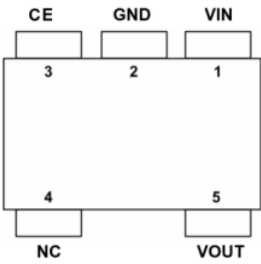
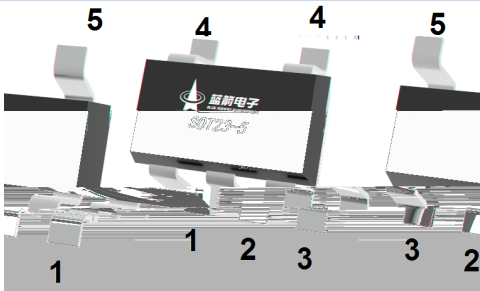
/ Applications

- ◆
- ◆
- ◆
- ◆
- ◆

/ 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($T_A=25^\circ\text{C}$, $V_{IN}=V_{OUT}+1\text{V}$, $C_{IN}=C_{OUT}=1\mu\text{F}$, unless otherwise specified)

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

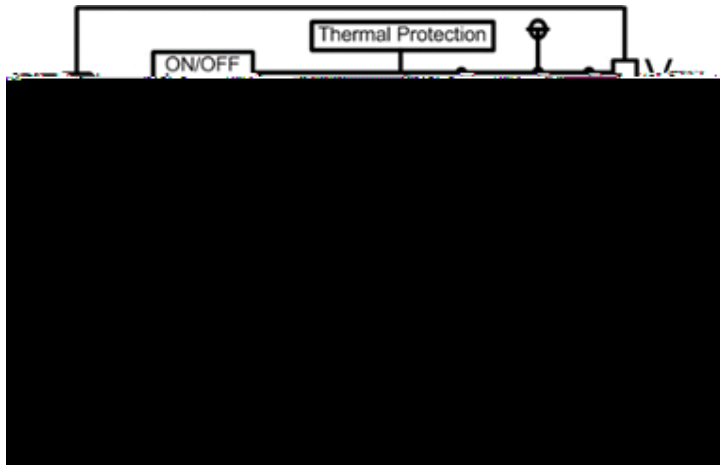
(1) V_{OUT_E} V_{OUT_S}

(2)

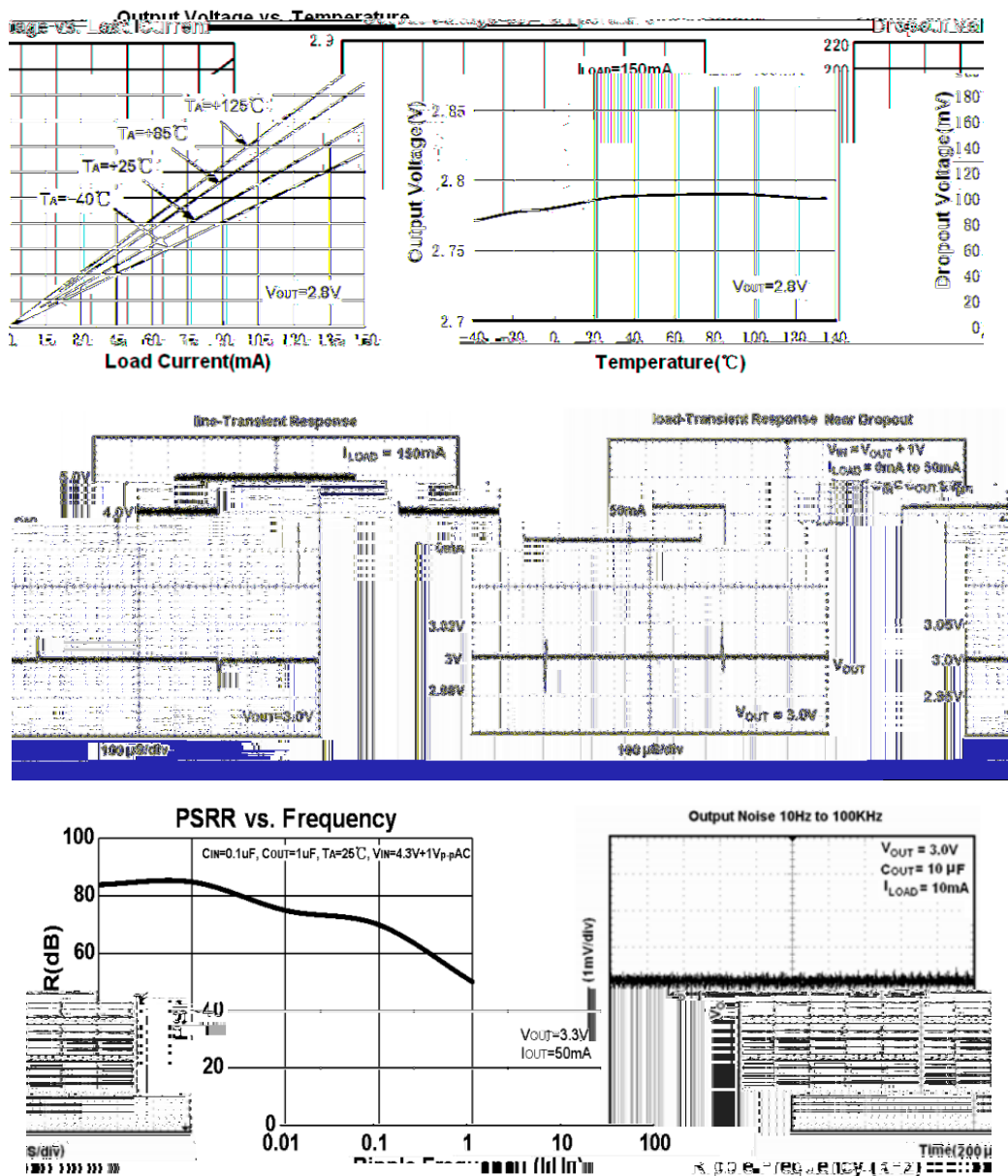
 V_{OUT} $V_{OUT} \times 98\%$



/ Functionl Block Diagram

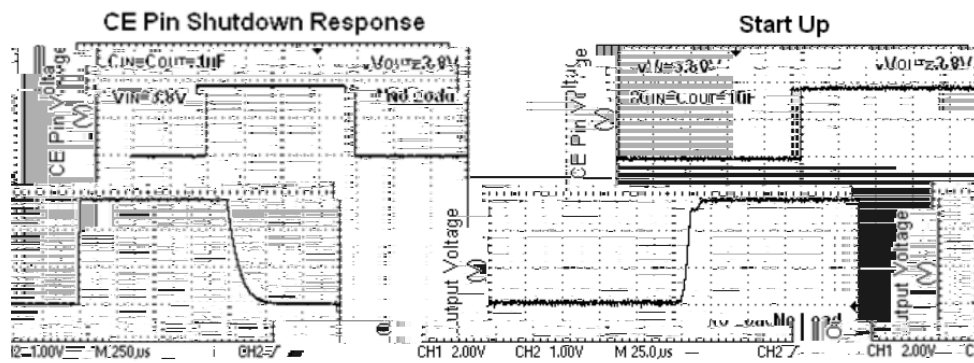


/ Electrical Characteristic Curve

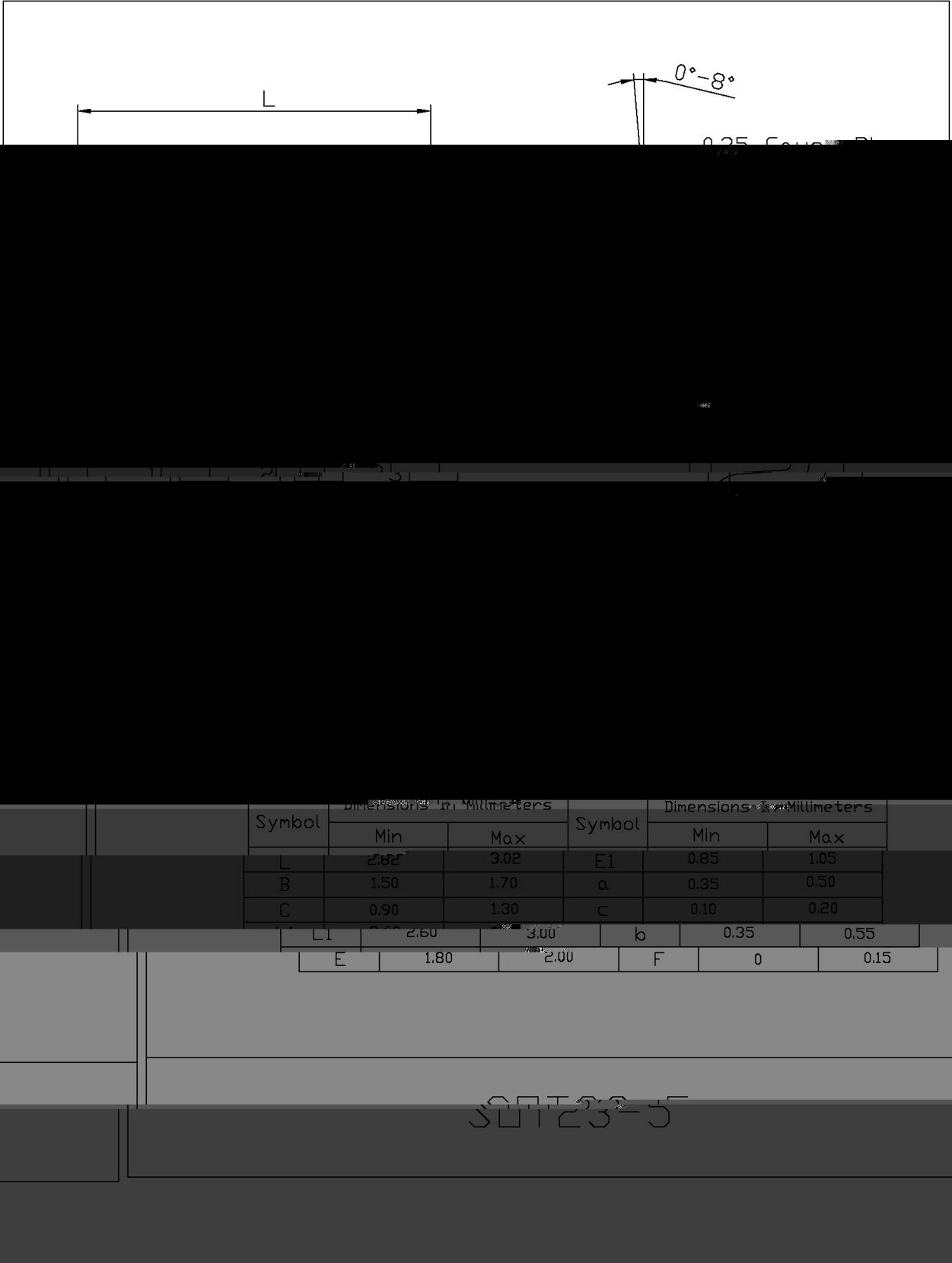




/ Electrical Characteristic Curve



/ Package Dimensions



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



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 °C , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 °C , Duration:5±0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 °C/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)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT23-5/6	3,000	10	30,000	4	120,000	7" ×8	210×205×205	445×435×230

/ Notices