

BST4232L 40V 300 A

BST4232L

LDO

300mA

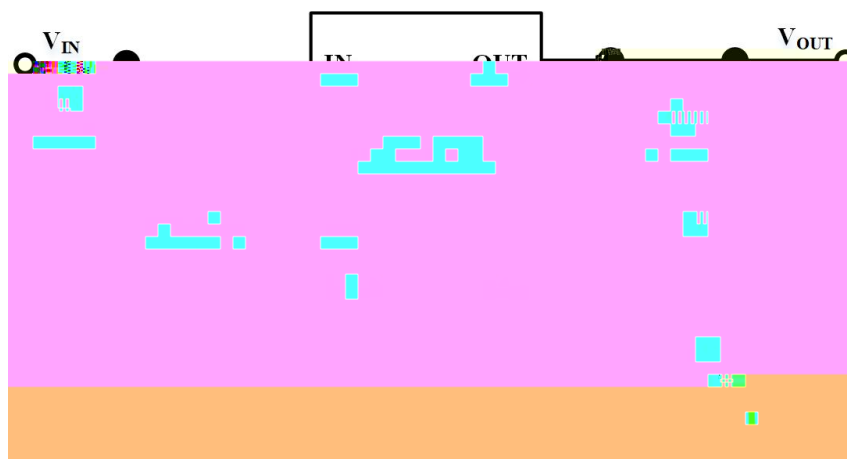
300mV

ESR

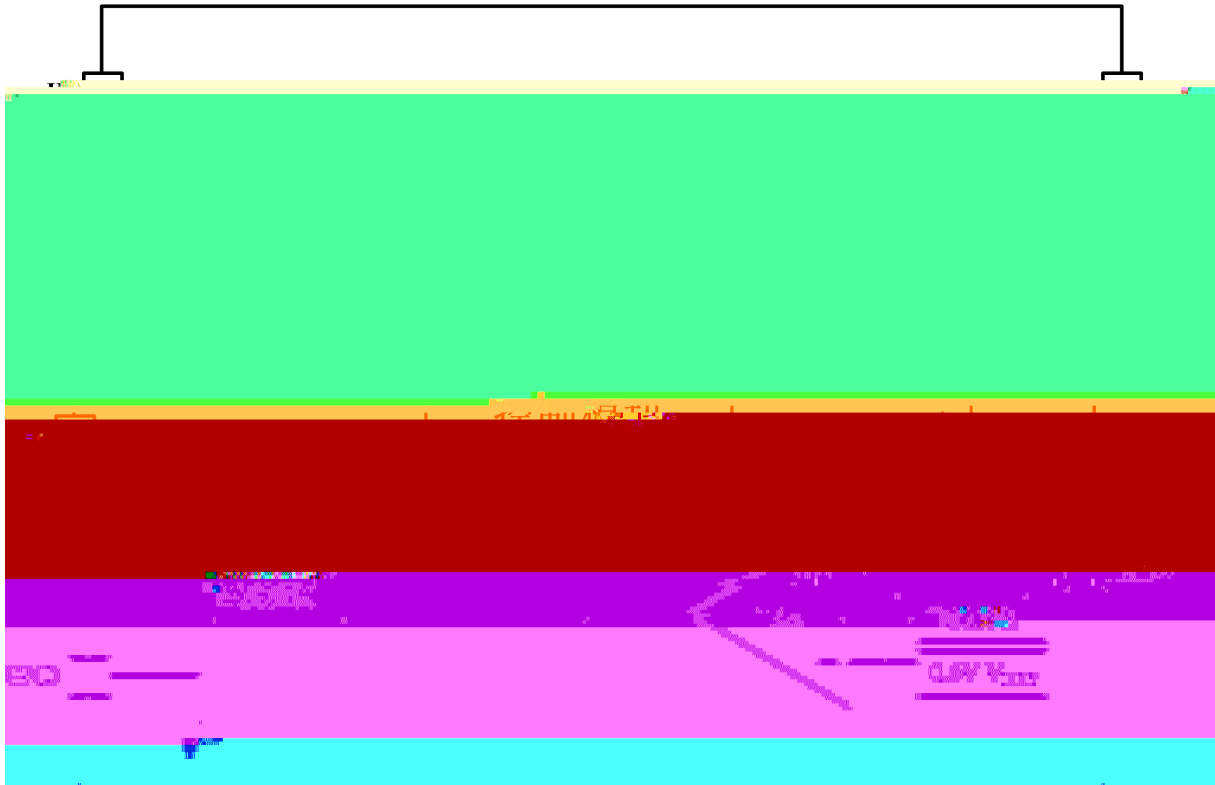
BST4232L

SOT23-5

- 4V 40V
- 300mV @ 300mA
- 2 μ A
- 1 μ A
- /DC-DC
- 600mA
- SOT23-5
- AEC-Q100-1



1 BST4232L



3 BST4232L

[1]

IN.....	-0.3V~40V
OUT.....	-0.3V~0.3V+V _{IN}
EN.....	-0.3V~0.3V+V _{IN}
ADJ.....	-0.3V~7V
$P_D@T_A=25^\circ\text{C SOT23-5}$	0.6W

[2]

J _A	170 /W
J _C	130 /W
.....	-40 ~150
10s	260
.....	-65 ~150

ESD^[3]

V _{ESD_HBM}	-3000V~+3000V
V _{ESD_CDM}	-300V~+300V

[4]

.....	4V~40V
.....	-40 ~85

$V_{EN} = V_{IN} = 12V$ $V_{OUT} = 3.3V$ $T_A = 25$

	V_{IN}	$I_{OUT} = 10mA$	4		40	V
	V_{REF}		591	600	609	mV
	V_{LNR}	$V_{IN} = (V_{OUT} + 0.3V) \sim 40V$ $I_O = 10mA$		1	1.5	mV/V
	V_{LDR}	$I_O = 10mA \sim 300mA$		0.25	1	%
	V_{dr}	$I_O = 10mA$		10	20	mV
		$I_O = 150mA$		150	300	mV
		$I_O = 300mA$		300	550	mV
	I_Q			2	4	μA
	I_{SHDN}	$V_{EN} = 0V$ $V_{IN} = 24V$			1.5	μA
	I_O	$V_{IN} = V_{OUT} + 0.6V$	0		300	mA
	I_{LIM}	$V_{IN} = 6V$ $V_{OUT} = 0.9 * V_{OUT(normal)}$	300	600	900	mA
	PSRR	$f = 1kHz$ $C_{OUT} = 10\mu F$		60		dB
		$F = 150kHz$ $C_{OUT} = 10\mu F$		30		dB
	V_{UVLO}	V_{IN}	3.2	3.3	3.7	V
	V_{UVLO_HYS}		0.1	0.2	0.5	V
	R_{DIS}			600		
	V_{EN_H}	$V_{IN} = 5V$	1.5			V
	V_{EN_L}	$V_{IN} = 5V$			0.8	V
	T_{SD}			165		
	T_{HYS}			20		

[1]

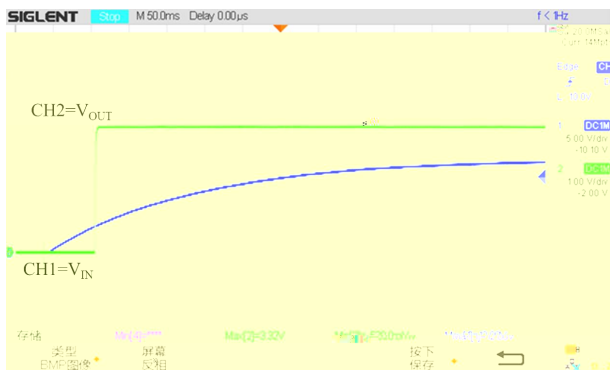
[2] J_A PCB $T_A = 25$

[3] ESD-HBM ANSI/ESDA/JEDEC JS-001

[4]

$T_A=25$

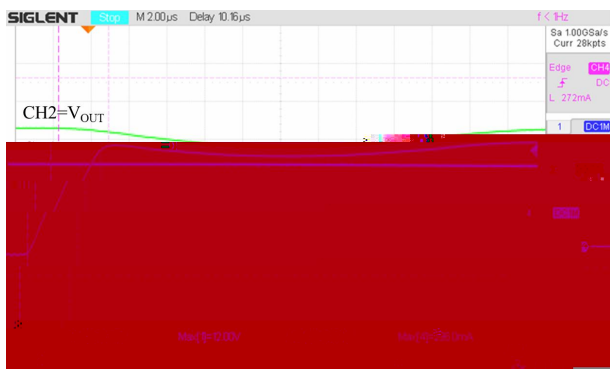
$V_{IN}=12V$ $V_{OUT}=3.3V$ $I_{OUT}=55mA$



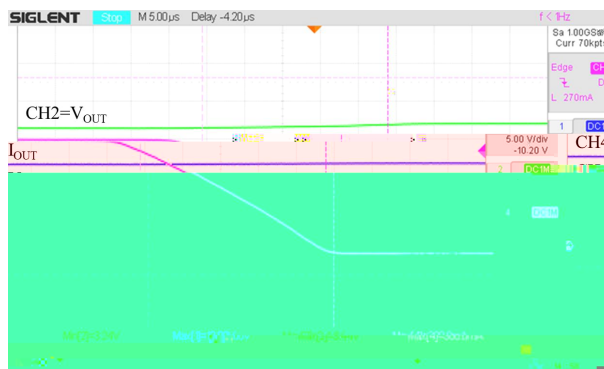
$V_{IN}=12V$ $V_{OUT}=3.3V$ $I_{OUT}=55mA$



$V_{IN}=12V$ $V_{OUT}=3.3V$ I_{OUT} 0mA~300mA



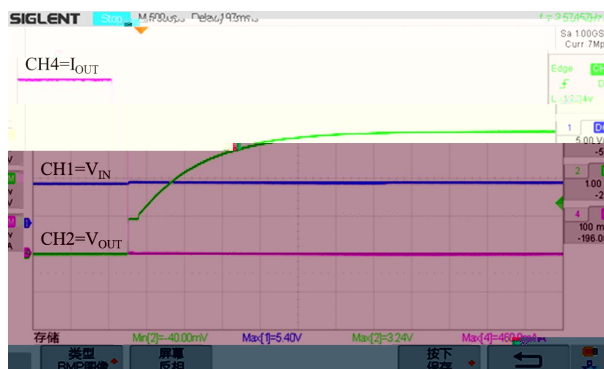
$V_{IN}=12V$ $V_{OUT}=3.3V$ I_{OUT} 300mA~0mA



$V_{IN}=12V$ $V_{OUT}=3.3V$ I_{OUT} 0mA~



$V_{IN}=12V$ $V_{OUT}=3.3V$ I_{OUT} ~0mA



MICRIP

BST4232U

BST4232U 30 nA

C_{IN}

C_{OUT}

R₁ R₂ BST4232U

R₁ R₂

R₁ R₂

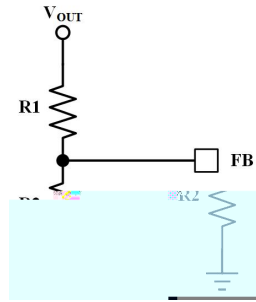
R₁

R₂

1%

10k 10M

$$R_2 = R_1 \frac{0.6V}{V_{OUT} - 0.6V}$$



EÉ 12B9 01°

= 2 5

BST4232L

300mA

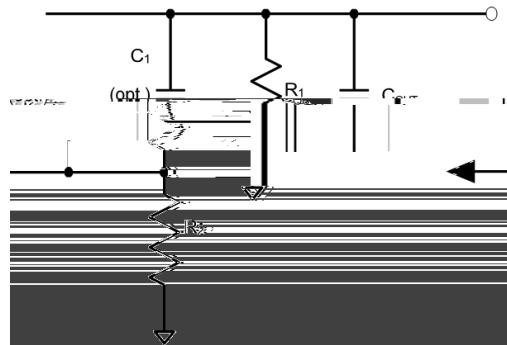
$$P_D = (V_{IN} - V_{OUT}) \cdot I_{OUT} + V_{IN} \cdot I_{GND}$$

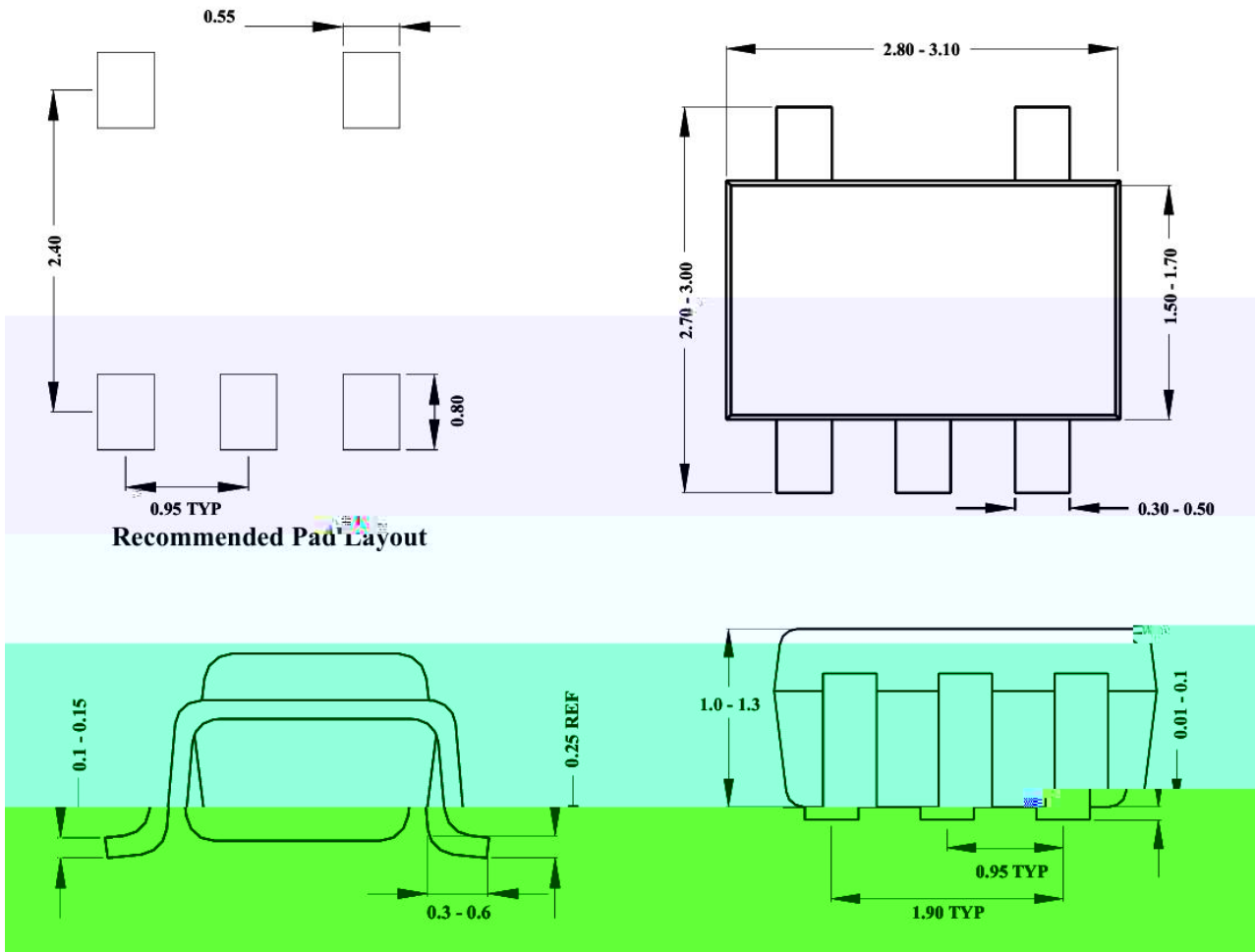
$$P_{D(MAX)} = (T_{J(MAX)} - T_A) / J_A$$

$$T_{J(MAX)} \qquad T_A$$

BST4232L

R₁





SOT23-5

BST4232L	SOT23-5	3000/Tape & Reel