

BRCS3134WB

Rev.A Oct.-2025

/ Descriptions

SOT-523 N MOS
N-CHANNEL MOSFET in a SOT-523 Plastic Package.

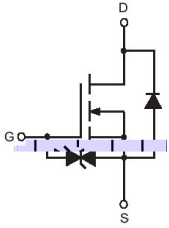
/ Features

$V_{DS}(V) = 20V$ $I_D = 0.75A$
 $R_{DS(ON)}@ 4.5V$ 380m (Typ.170m)
 $R_{DS(ON)}@ 2.5V$ 450m (Typ.230m)
 $R_{DS(ON)}@ 1.8V$ 590m (Typ.330m)
2KV ESD protected up to 2KV.
HF Product.

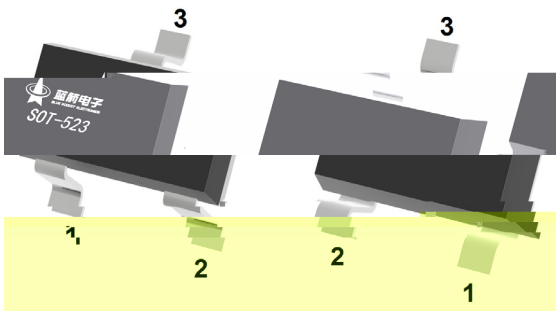
/ Applications

DC/DC
Load Switching, Low Current Inverters, Low Current DC/DC Converters.

/ Equivalent Circuit



/ Pinning



PIN 1 G PIN 2 S PIN 3 D

/ Marking

See Marking Instructions.

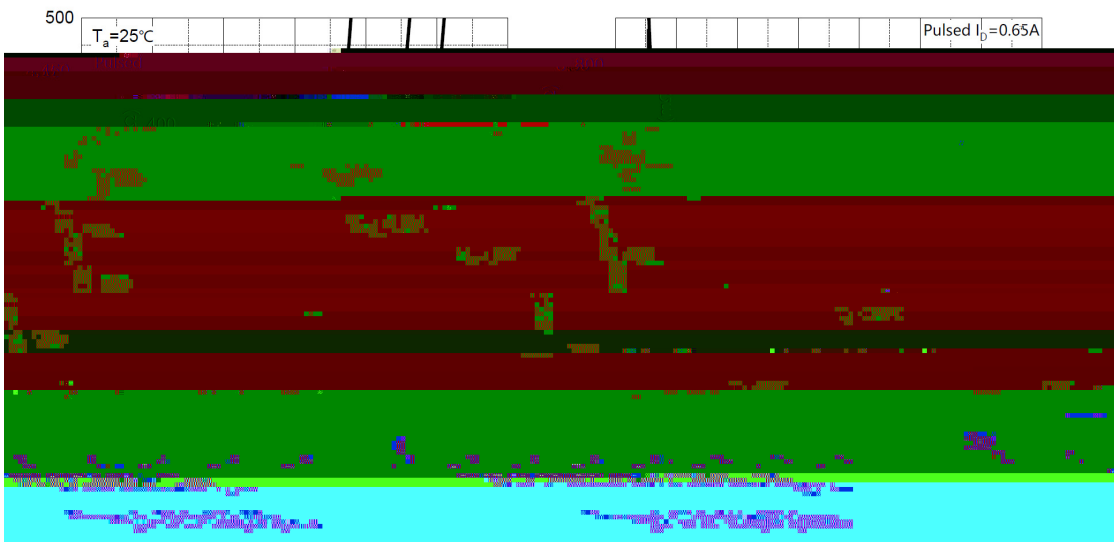
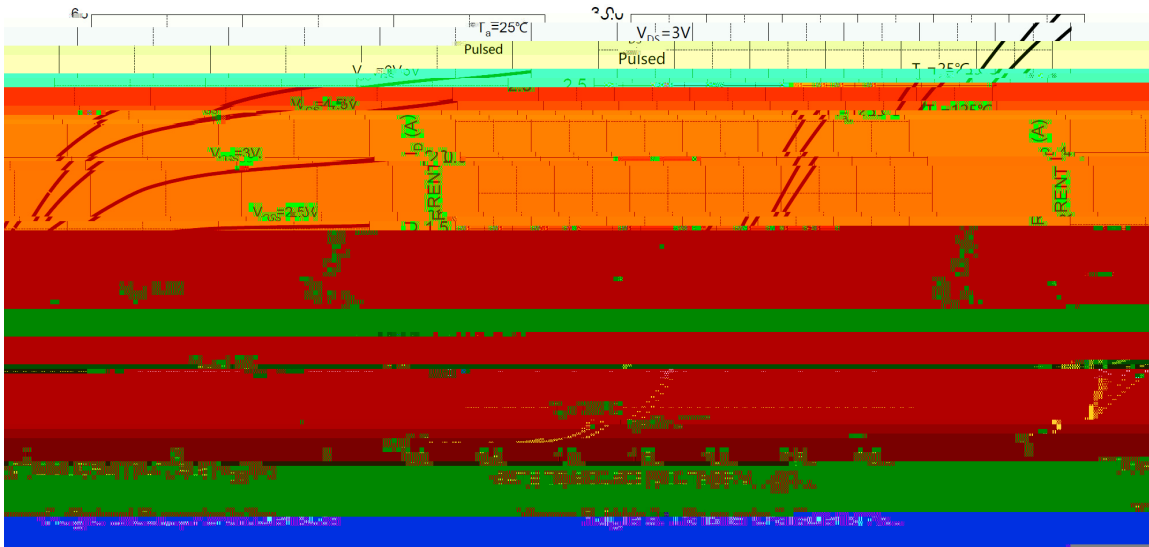
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Drain Current	I_D	0.75	A
Drain Current – Pulsed	I_{DM}	3.0	A
Power Dissipation	P_D	0.15	W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance from Junction to Ambient	R_{JA}	833	/W

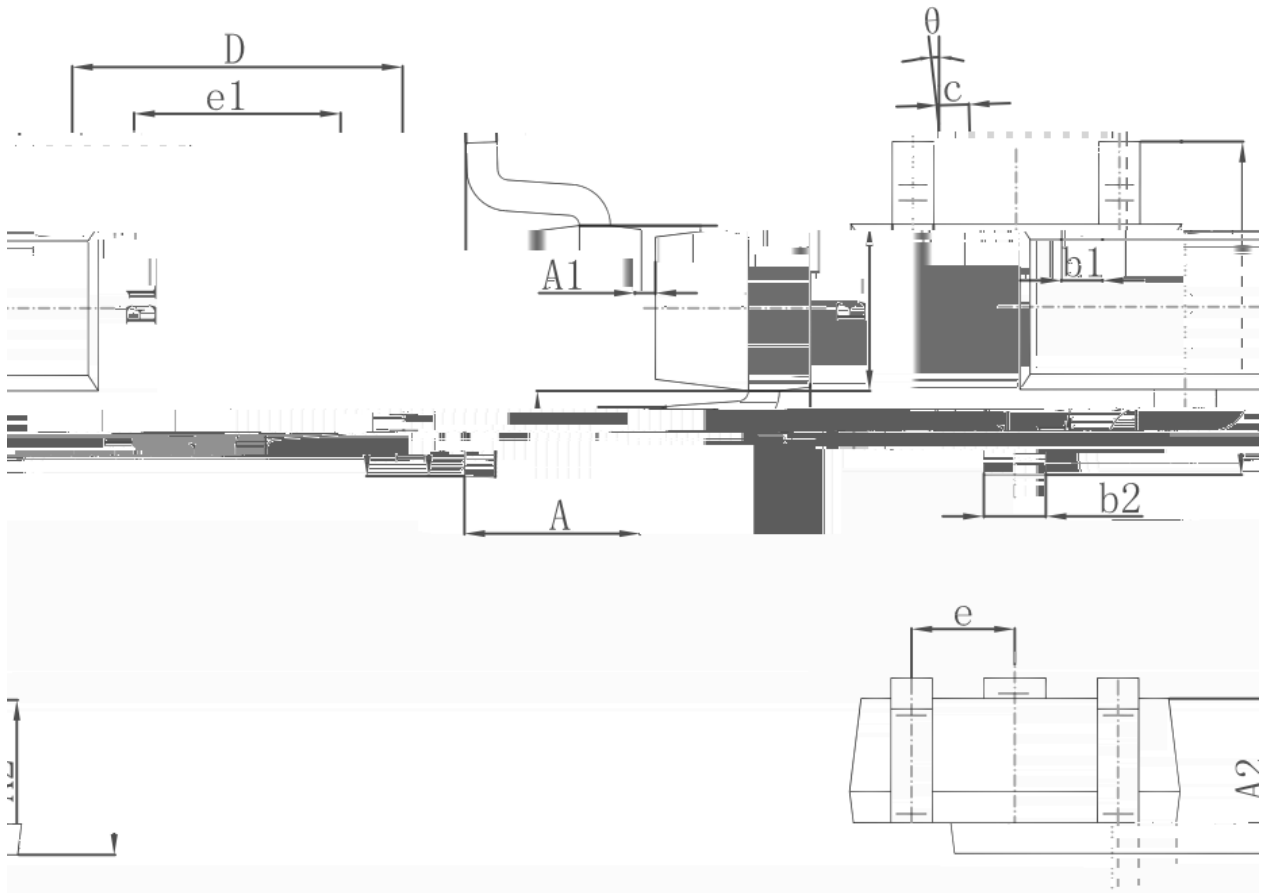
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	V_{DSS}	$V_{GS}=0$ $I_D=250\mu A$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{GS}=0$ $V_{DS}=20V$			1	μA
Gate–Body Leakage	I_{GSS}	$V_{DS}=0V$ $V_{GS}=\pm 10V$			± 10	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	0.4	0.7	1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)(1)}$	$V_{GS}=4.5V$ $I_D=650mA$		170	380	m
	$R_{DS(on)(2)}$	$V_{GS}=2.5V$ $I_D=550mA$		230	450	m
	$R_{DS(on)(3)}$	$V_{GS}=1.8V$ $I_D=450mA$		330	590	m
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=150mA$			1.2	V
Input Capacitance	C_{iss}	$V_{DS}=10V$ $V_{GS}=0V$ $f=1.0MHz$		55		pF
Output Capacitance	C_{oss}			15		
Reverse Transfer Capacitance	C_{rss}			10		
Total Gate Charge	Q_g	$V_{GS}=4.5V,$ $V_{DS}=10V,$ $I_D=0.65A$		0.8		nC
Gate Source Charge	Q_{gs}			0.2		
Gate Drain Charge	Q_{gd}			0.01		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=4.5V$ $V_{DS}=10V$ $I_D=0.5A$ $R_{GEN}=10$		6.7		ns
Turn-On Rise Time	t_r			4.8		
Turn-Off Delay Time	$t_{d(off)}$			17.3		
Turn-Off Fall Time	t_f			7.4		

/ Electrical Characteristic Curve



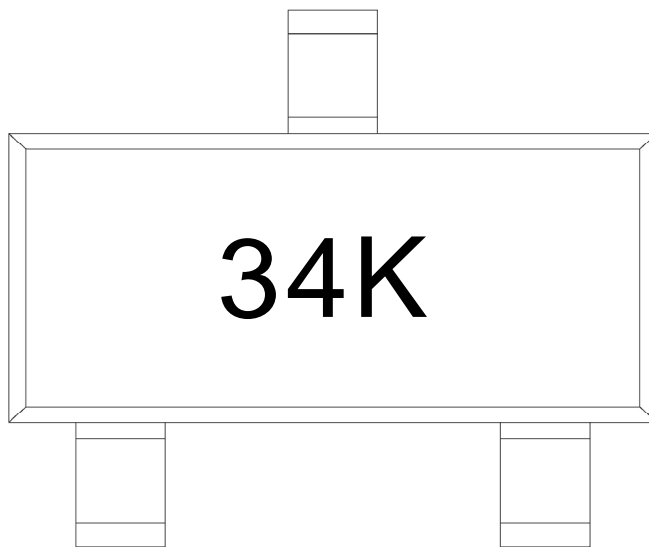
/ Package Dimensions



Dimensions In Millimeters		Dimensions In Inches		Symbol	Dimens
	Max.	Min.	Max.		Min.
	0.900	0.028	0.035	A	0.700
A1	0.028	0.031	0.004	A2	0.700
b1	0.030	0.034	0.004	b2	0.250
c	0.004	0.008	0.000	e	0.100
D	0.035	0.007	0.000	e1	1.450
e	0.069	0.000	0.000	e	0.700
e1	0.043	0.000	0.000	e1	1.750
L	0.018	0.000	0.000	L	0.900
theta	8°	0.000	0.000	theta	0.028

Symbol	Value	Symbol	Value
e	0.500 TYP.	e1	1.100
L	0.400 REF.	L1	0.260
L1	0.460	theta	8°
theta	0°		

/ Marking Instructions



34K

Note:

34K: Product Type Code

() / 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±0.5sec; | 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
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/ Packaging SPEC.

/ REEL