

BRCS3134WB

Rev.A Oct.-2025

/ Descriptions

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

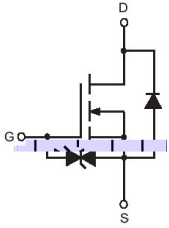
/ Features

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

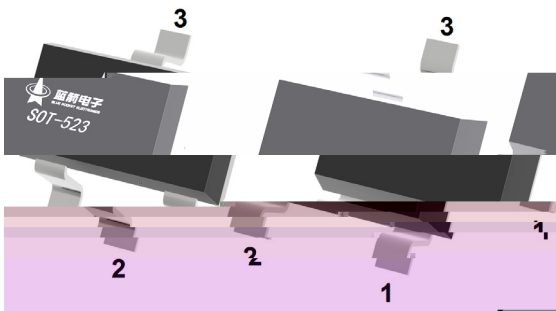
/ Applications

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.

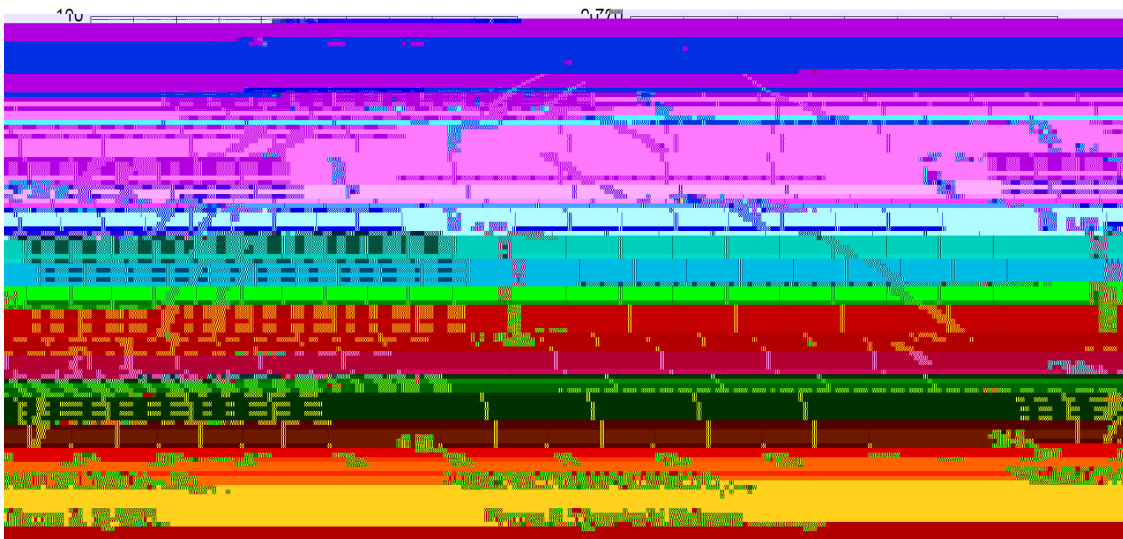
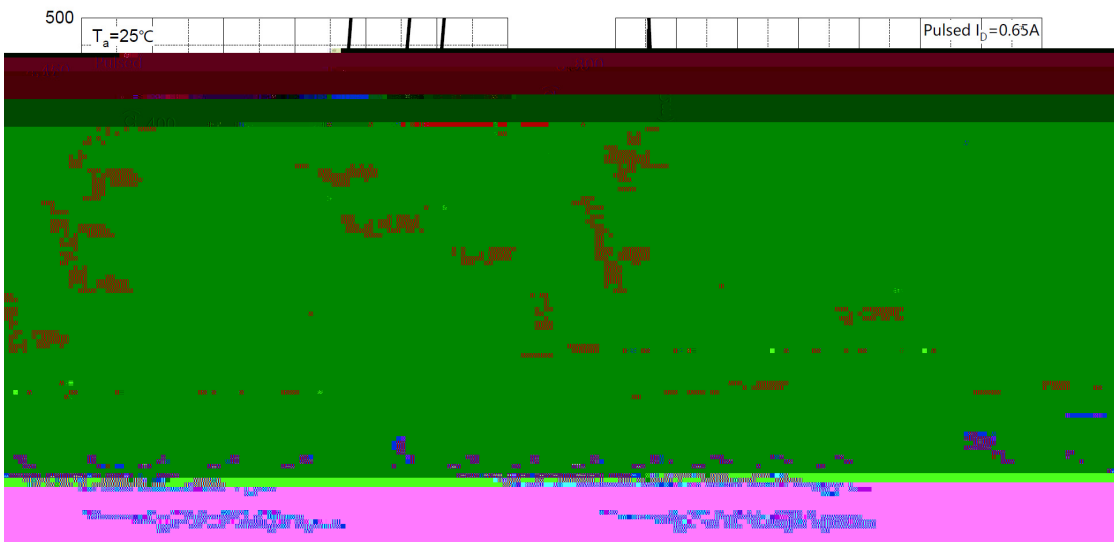
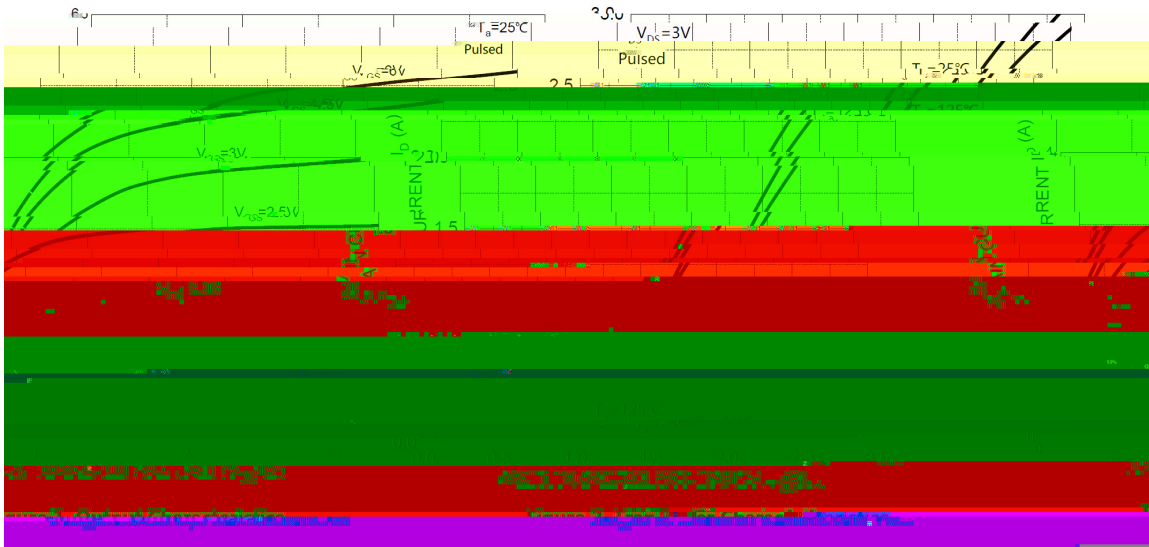
/ Absolute Maximum Ratings(Ta=25)

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

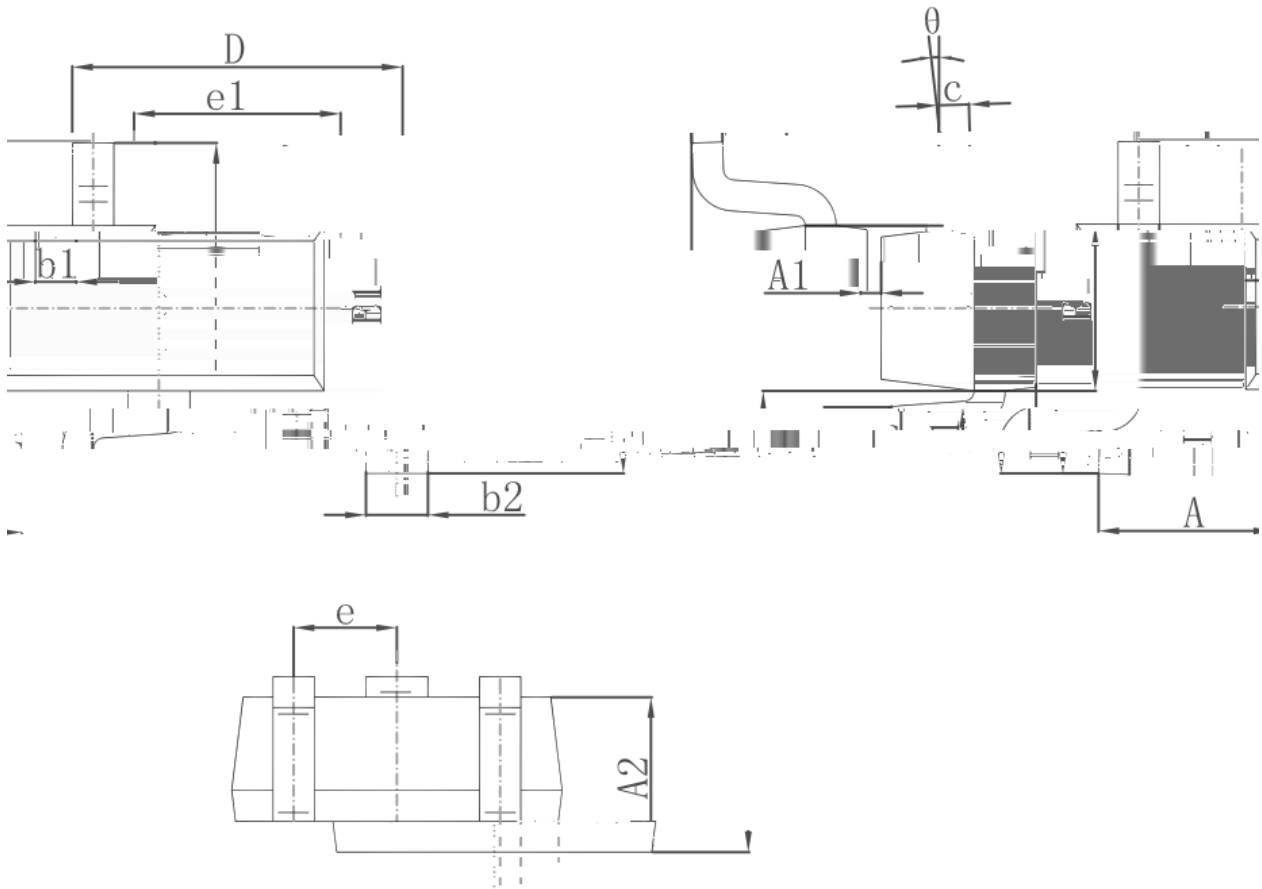
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	V _{DSS}	V _{GS} =0 I _D =250uA	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} =±10V			± 10	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =250uA	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, I _D =0.65A V _{DS} =10V,		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 I _D =0.5A V _{DS} =10V 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

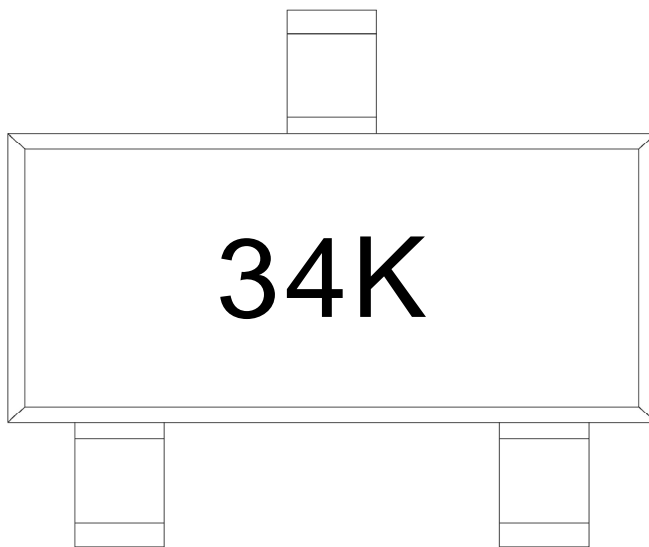


/ Package Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.000	0.000	0.000
A2	0.700	0.800	0.028	0.031
b1	0.150	0.150	0.006	0.006
b2	0.250	0.250	0.010	0.010
c	0.100	0.200	0.004	0.008
D	0.700	0.900	0.028	0.035
e	1.750	0.057	0.069	B1
e1	0.500 TYP.	0.020 TYP.		
L	1.100	0.035	0.043	e
L1	0.400 REF.	0.016 REF.		e1
theta	8°	0°	0.018	L
				L1
				theta

/ 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