

/ Descriptions

SOT-323 N MOS

N-Channel MOSFET in a SOT-323 Plastic Package.

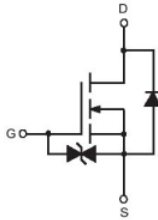
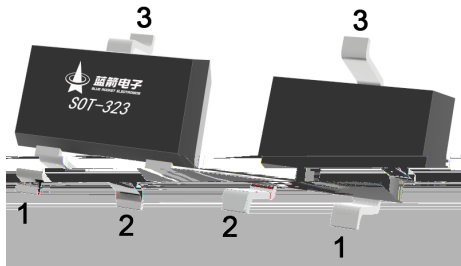
/ Features

2KV

Sensitive gate trigger current and Low Holding current.ESD protected up to 2KV, HF Product.

/ Applications

Intended for use in general purpose switching and phase control applications.

/ Equivalent Circuit**/ Pinning**

Pin1:G

Pin2:S

Pin3:D

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V _{DSS}	20	V
Gate-Source Voltage		V _{GSS}	±8	V
Drain Current – Continuous		I _D	0.75	A
Pulsed Drain Current		I _{DM}	3	
Power Dissipation		P _D	200	mW
Junction and Storage Temperature Range		T _J , T _{stg}	-55 to 150	
Thermal resistance, junction - ambient	t ≤ 10s	R _{θJA}	450	/W
	Steady-State		570	

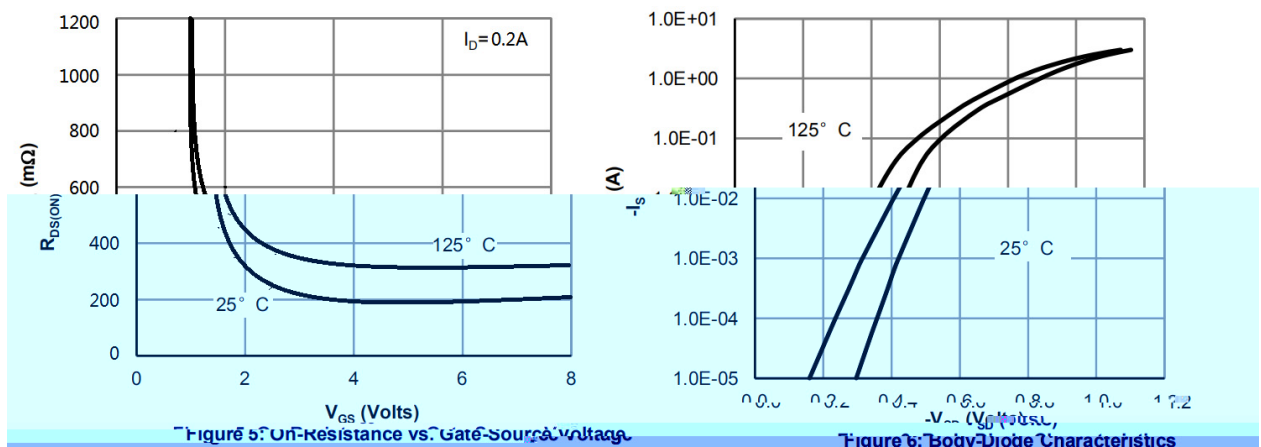
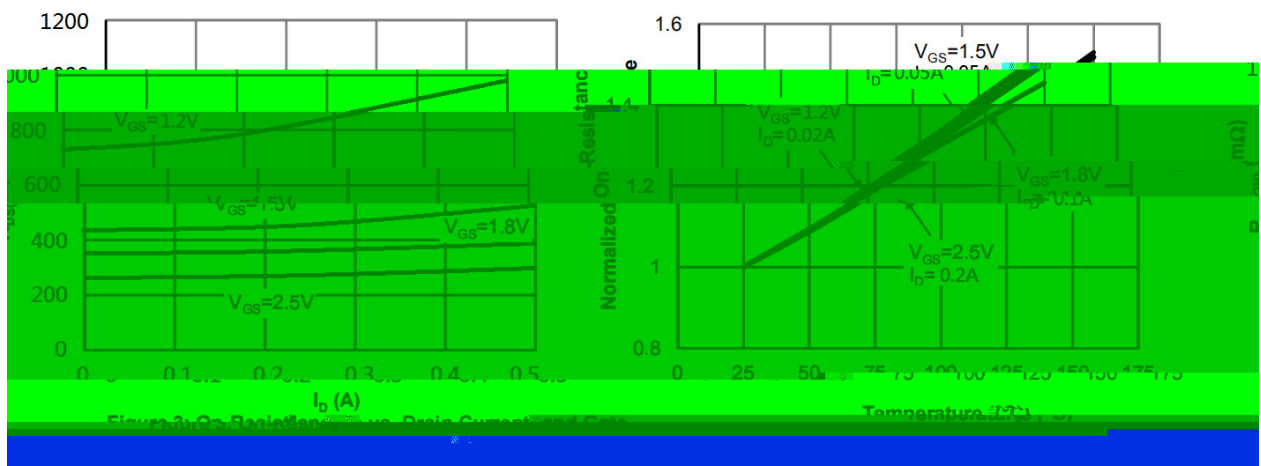
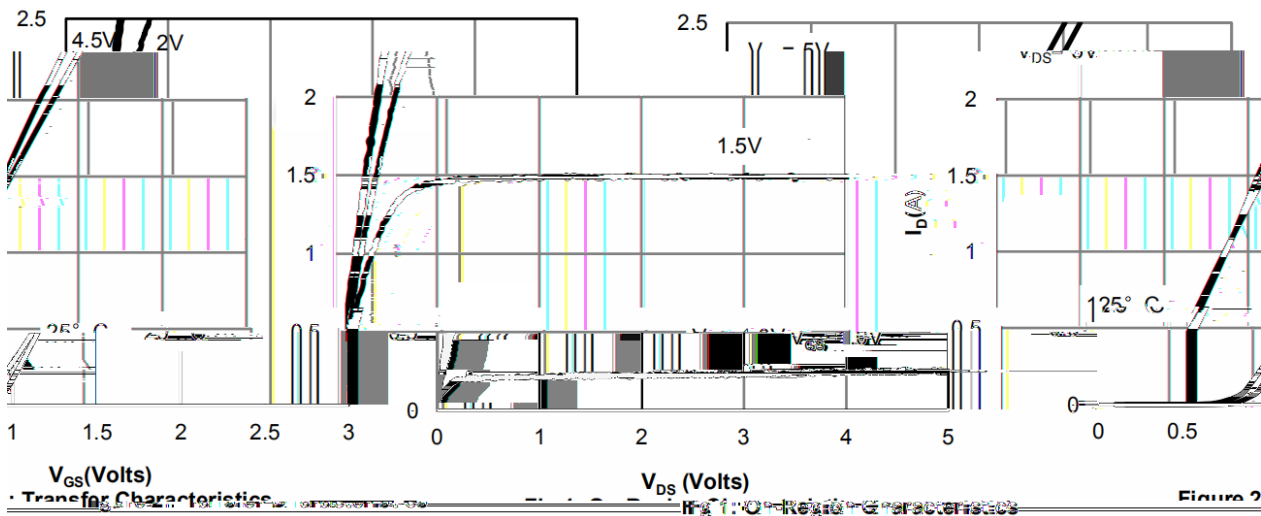
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	V _{DSS}	V _{GS} =0	I _D =250uA	20	22.9		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{GS} =0	V _{DS} =20V			1	μA
Gate–Body Leakage	I _{GSS}	V _{DS}	V _{GS} =±8V			10	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS}	V _{GS} I _D =250uA	0.5	0.1	0.8	V
Static Drain-Source On-Resistance	R _{DS(on)(2)}	V _{GS} =1.8V	I _D =100mA		353	750	mΩ
	R _{DS(on)(3)}	V _{GS} =1.5V	I _D =50mA		442		mΩ
Drain-Source Diode Forward Voltage		V _S =0V	I _S =250mA				
	f _g	V _{GS} =0V	V _{DS} =0V		60		Ω
Input Capacitance	C _{iss}	f=1MHz			105		pF
Output Capacitance	C _{oss}	V _{DS}	V _{GS} =0V		65		
Reverse Transfer Capacitance	C _{rss}	f=1.0MHz			20		

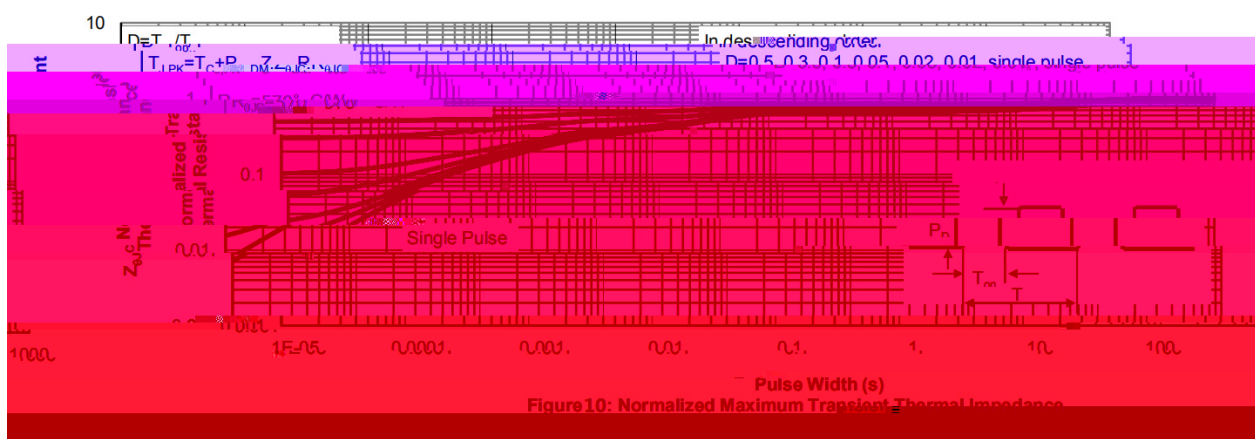
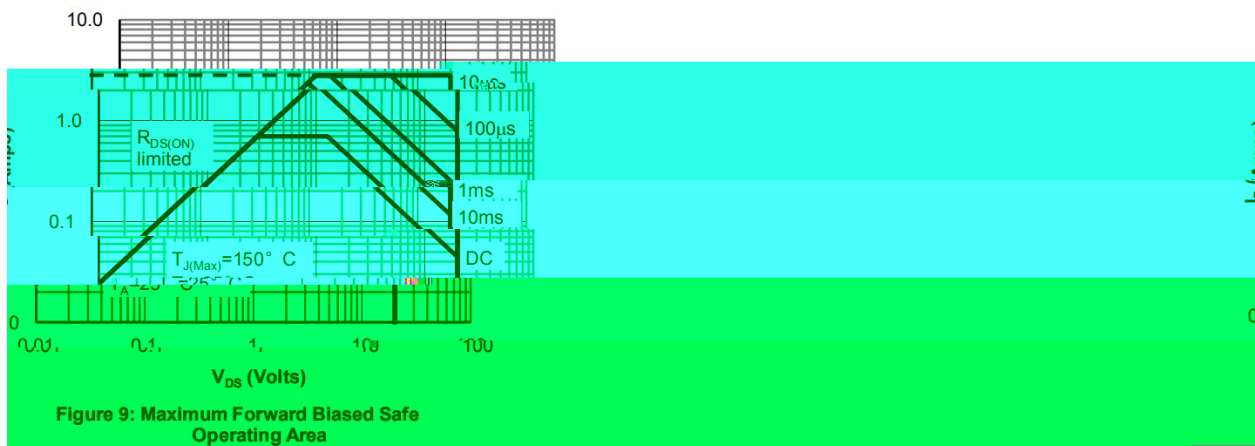
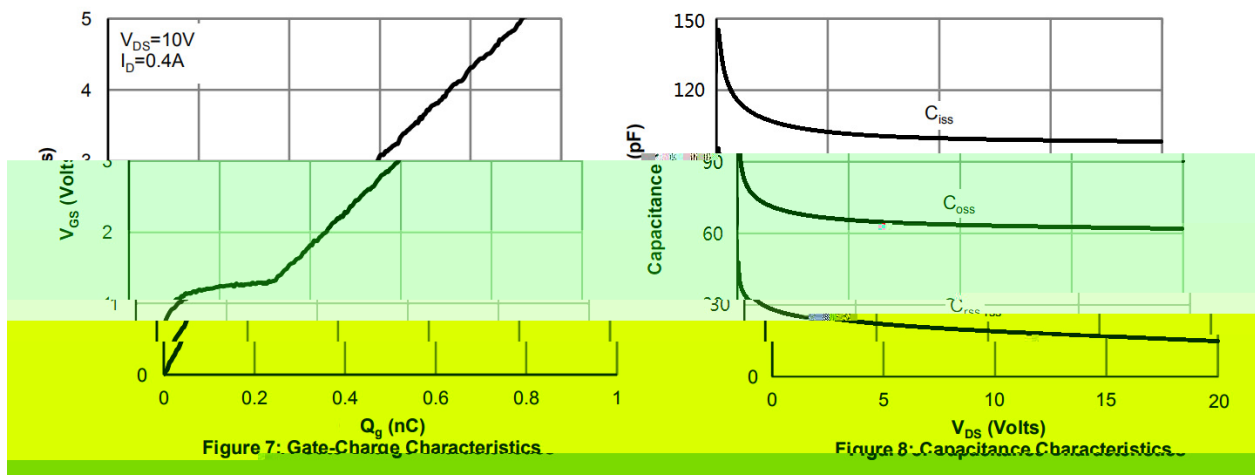
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=4.5V, \quad V_{DS}=10V, \quad I_D=0.4A$		0.85		nC
Gate Source Charge	Q_{gs}			0.1		
Gate Drain Charge	Q_{gd}			0.25		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=4.5V \quad V_{DS}=10V$ $R_L=25\Omega \quad R_{GEN}=3\Omega$		2		ns
Turn-On Rise Time	t_r			4		ns
Turn-Off Delay Time	$t_{d(off)}$			18		ns
Turn-Off Fall Time	t_f			8		ns

Electrical Characteristic Curve

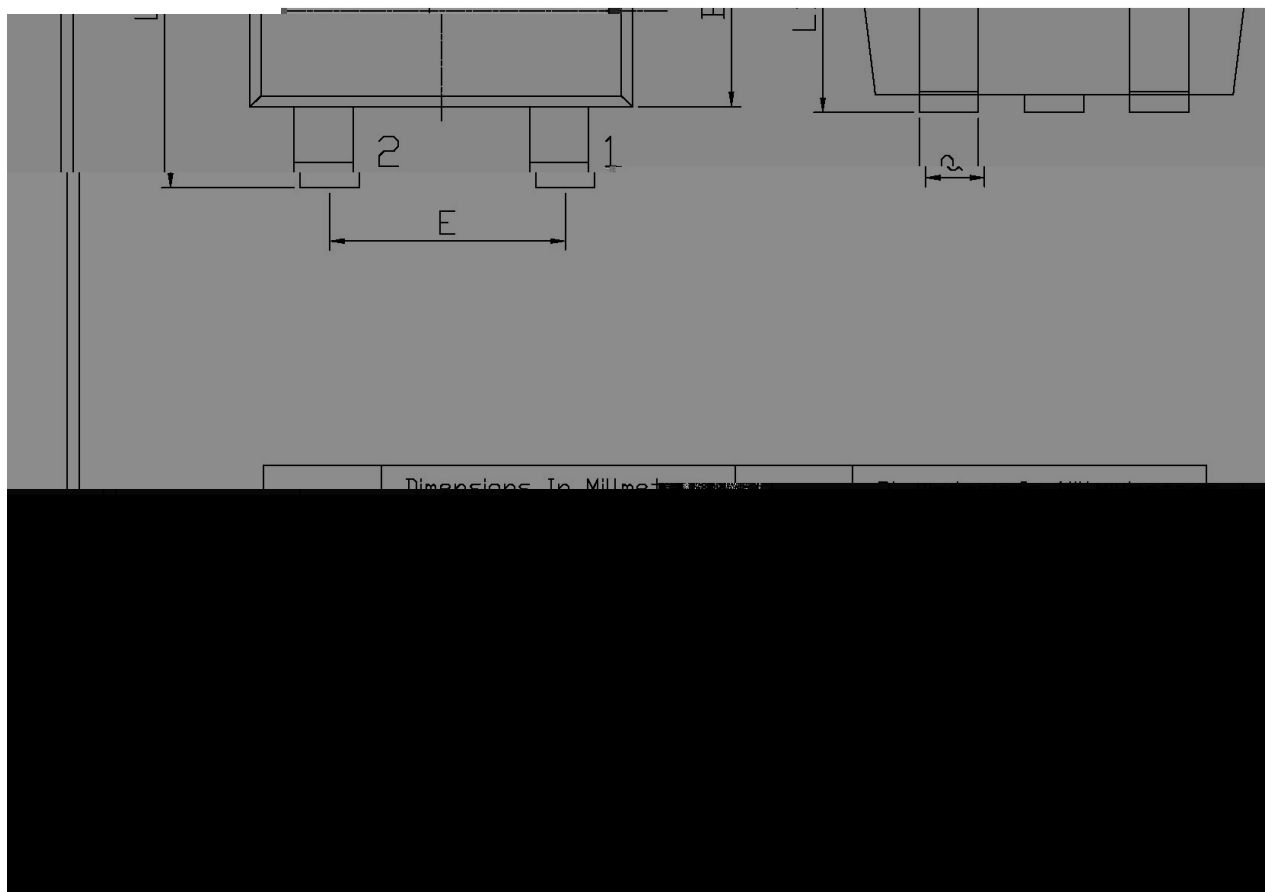


/ Electrical Characteristic Curve

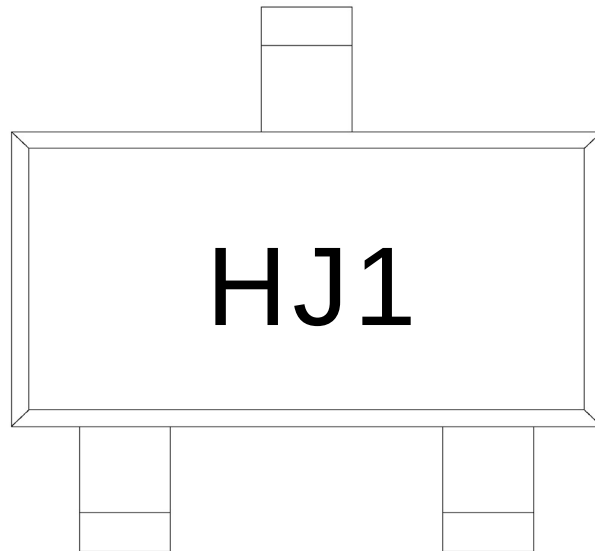


SQT-323

單位：mm



/ Marking Instructions



H

J1

Note:

H: Company Code

J1: Product Type Code

BRCS3134WA