

/ Descriptions

Silicon Diode in a SOT-23 Plastic Package.

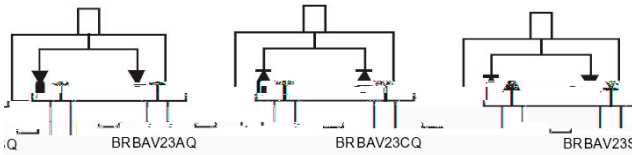
/ Features

Small signal diode, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

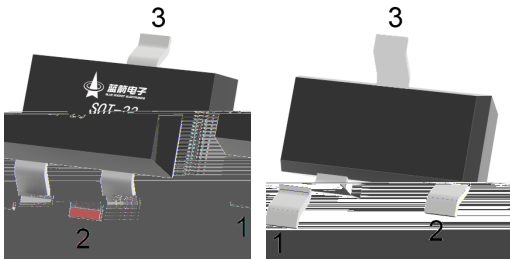
/ Applications

Switching speed, general-purpose switching applications, high conductivity, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN: See Equivalent Circuit.

/ Marking

Model	BRBAV23AQ	BRBAV23CQ	BRBAV23SQ
Marking	QT7	QT6	QT5

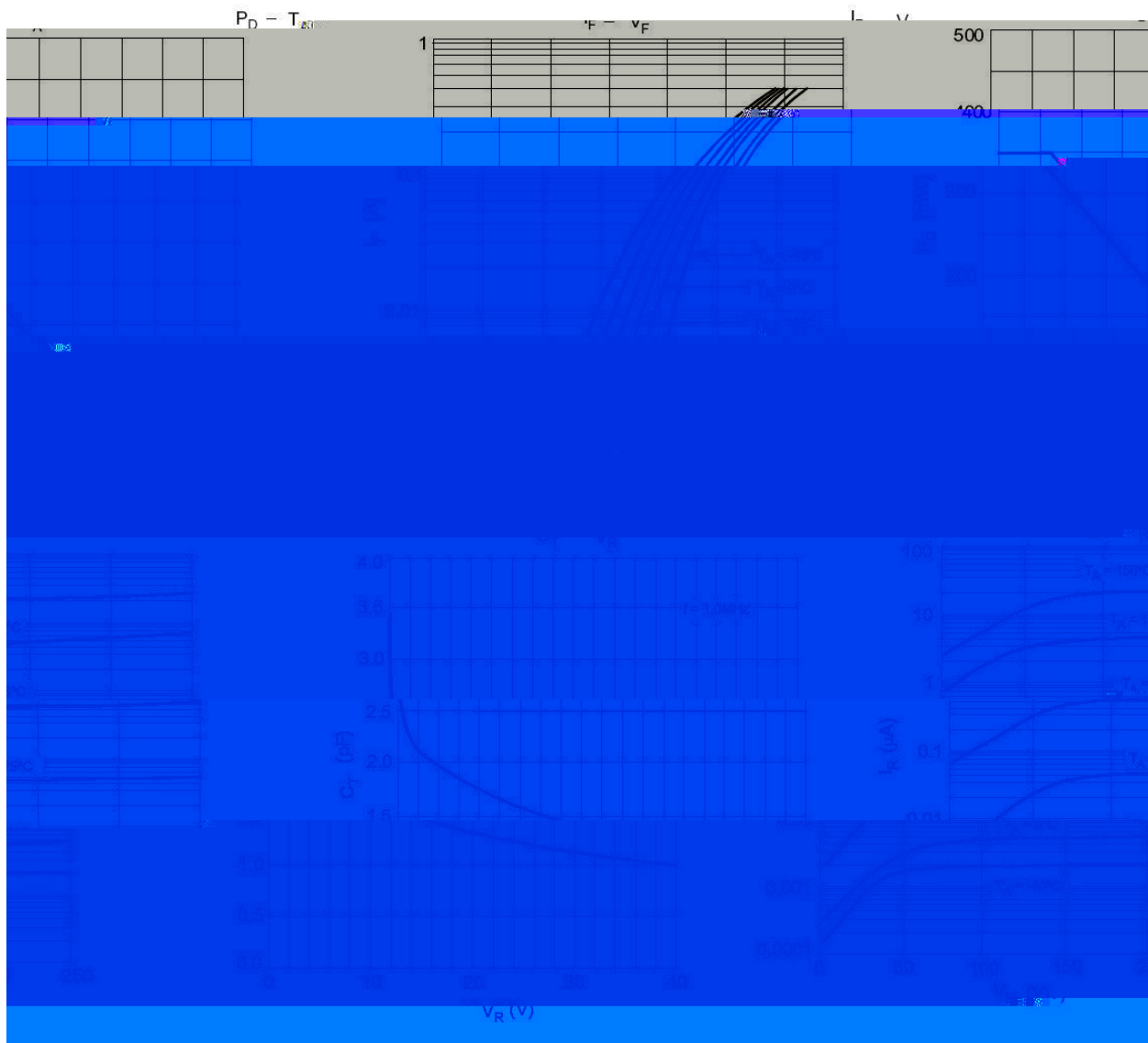
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Repetitive Reverse Voltage	V_{RRM}	250	V
Reverse Voltage	V_R	200	V
Working Peak Reverse Voltage	V_{RWM}		
RMS Reverse Voltage	$V_{R(RMS)}$	141	V
Average Rectified Forward Current	I_{FM}	400	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM(1)}$ (pulse width=1.0 uS)	9.0	A
	$I_{FSM(2)}$ (pulse width=100uS)	3.0	A
	$I_{FSM(3)}$ (pulse width=10ms)	1.7	A
Repetitive Peak Forward Surge Current	I_{FRM}	625	mA
Power Dissipation	P_D	350	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	/W
Junction and Storage Temperature Range	T_j, T_{stg}	-65 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_R	$I_R=100\mu A$	250			V
Forward Voltage	V_F	$I_F=100mA$			1.0	V
		$I_F=200mA$			1.25	V
Instantaneous Reverse Current	I_R	$T_J=25$			100	nA
		$T_J=150$			100	μA
Total Capacitance	C_T	$V_R=0$ $f=1.0MHz$			5.0	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=30mA$ $I_{RR}=0.1 \times I_R$ $R_L=100\Omega$			50	ns

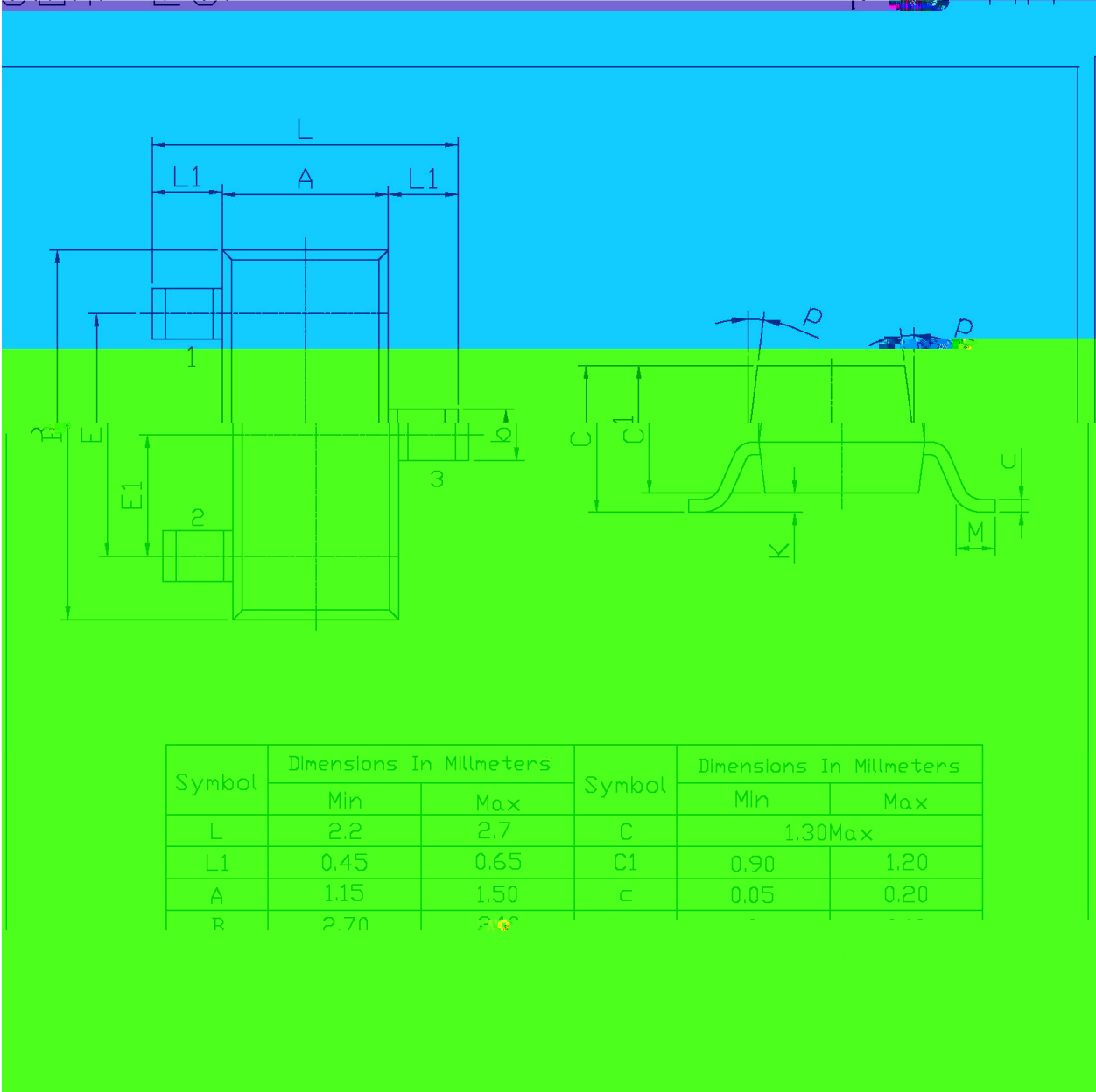
/ Electrical Characteristic Curve



/ Package Dimensions

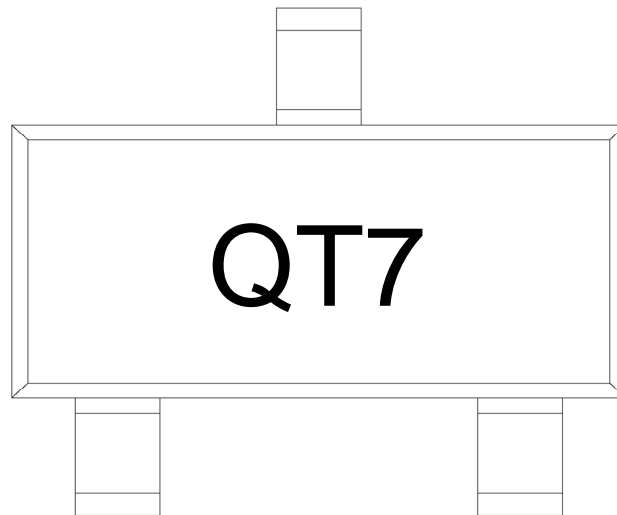
SOT-23

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
R	2.70	2.65			

/ Marking Instructions



Note:

Q: Automobile halogen-free product Code

T7: Product Type

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

Note:

- 1 150 200 60 120sec; 1.Preheating:150~200 , Time:60~120sec.
- 2 255 5 5 0.5sec; 2.Peak Temp.:255 5 , Duration:5 0.5sec.
- 3 2 10 /sec. 3.Cooling Speed: 2~10 /sec.

1.2(cResist)2.2(sance)5.7 to Solderng)48)HatiTpest CondiionsZ3