

**Description**

The BAV23 series is silicon diode, SOT-23 plastic package

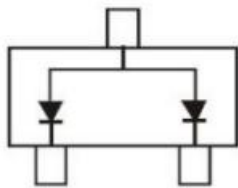
**Features**

- Small signal diode,
- Qualified to AEC-Q101 Standards for High Reliability,
- Halogen-free Product

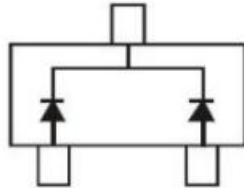
**Applications**

- Switching speed
- General-purpose switching applications
- High conductivity
- Meet the stringent requirements of automotive applications

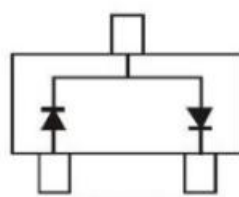
**Equivalent Circuit & Pinning**



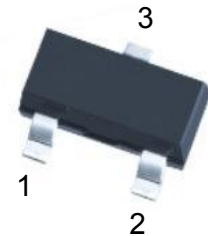
CTBAV23AQ



CTBAV23CQ



CTBAV23SQ



PIN: See Equivalent Circuit.

**Marking**

Model	CTBAV23AQ	CTBAV23CQ	CTBAV23SQ
Marking	QT7	QT6	QT5

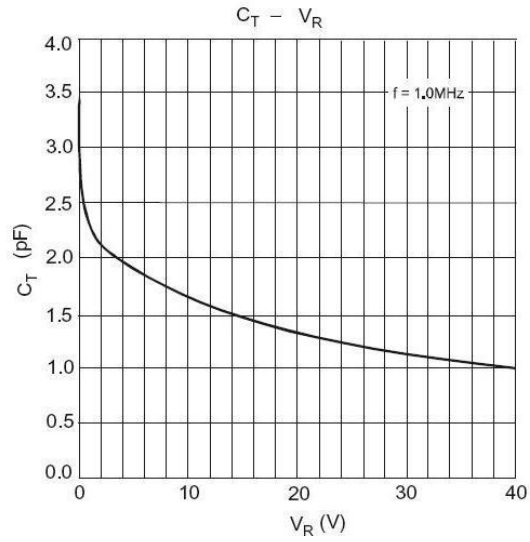
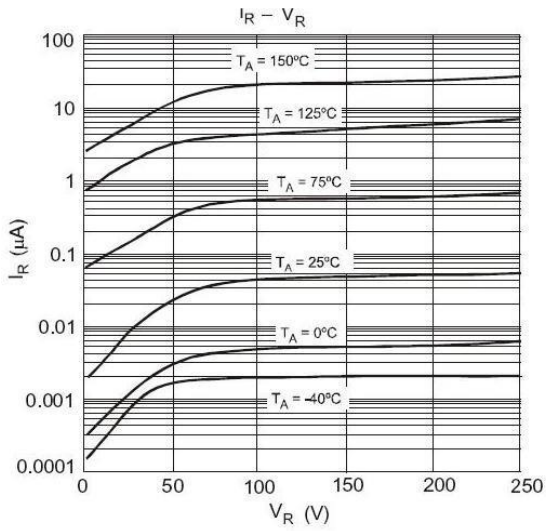
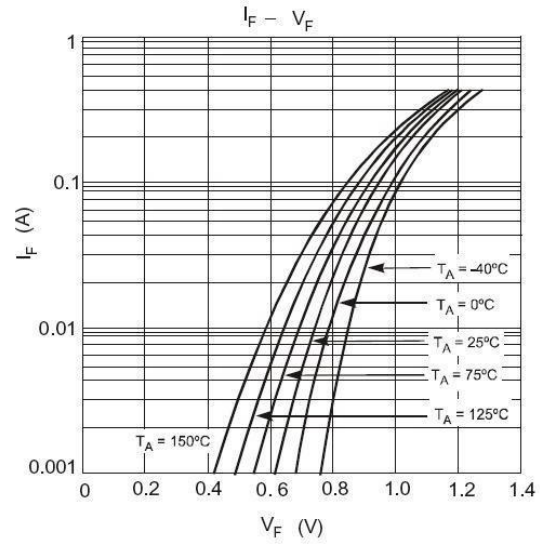
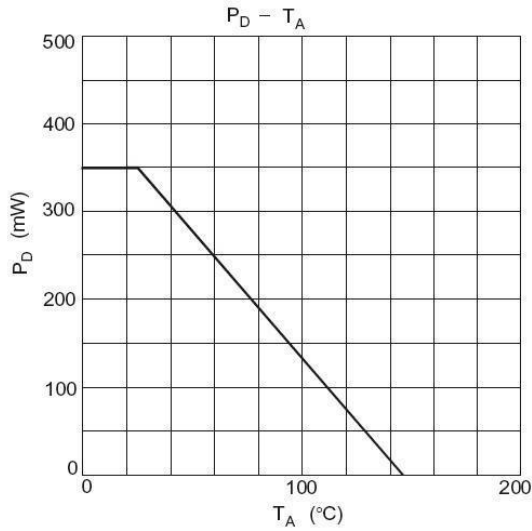
**Absolute Maximum Ratings(Ta=25°C)**

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	°C/W
Junction and Storage Temperature Range	$T_j, T_{stg}$	-65~150	°C

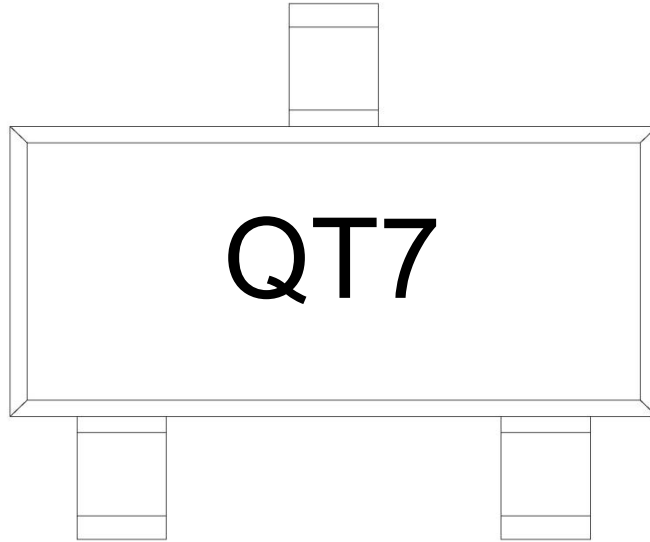
**Electrical Characteristics(Ta=25°C)**

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	$I_R$	$T_J=25^\circ C$			100	nA
		$T_J=150^\circ C$			100	$\mu A$
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



Marking Instructions



Note:

- Q: Automobile halogen-free product Code
- T7: Product Type

Packaging SPEC.

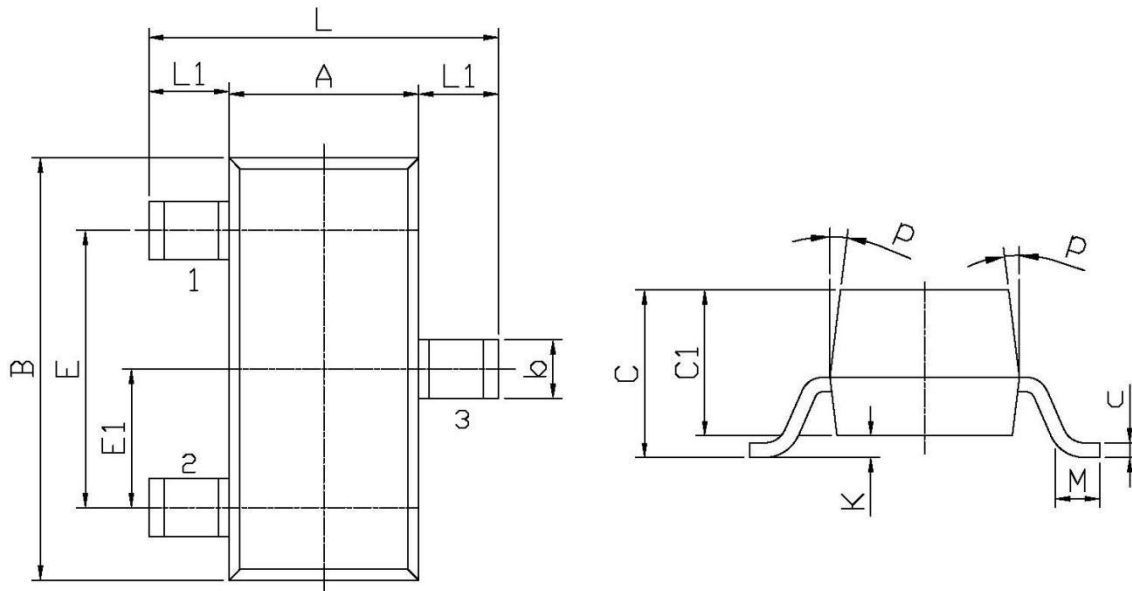
REEL INFORMATION

Package Type	Units					Dimension (unit: mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7" x8	180×120×180	390×385×205

Package Outline 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
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			