

Rev.B Jul.-2022

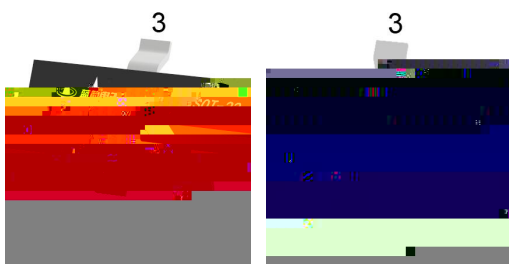
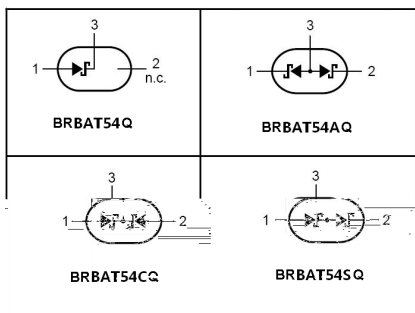
SOT-23

Schottky diodes in a SOT-23 Plastic Package.

AEC-Q101

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

Low forward and reverse recovery times, Meet the stringent requirements of automotive applications.



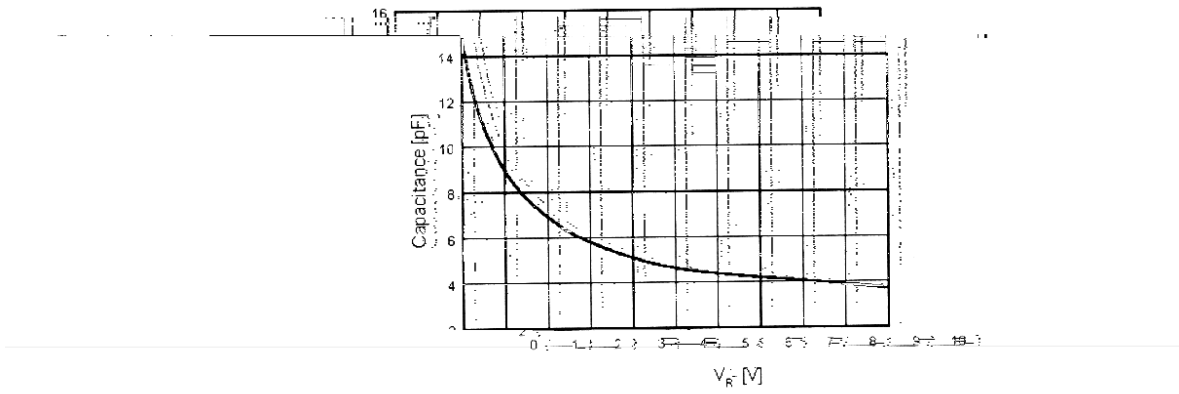
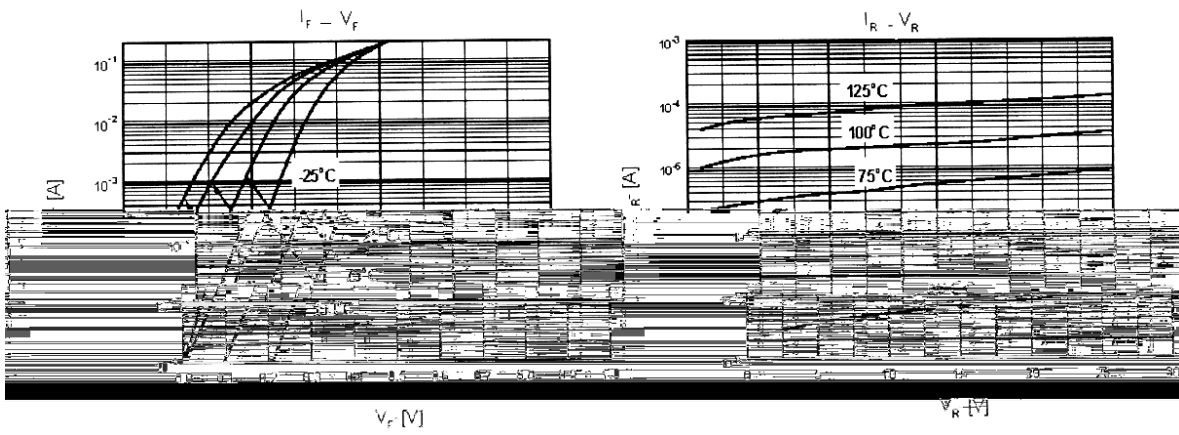
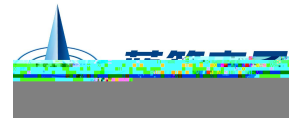
PIN: See Equivalent Circuit.

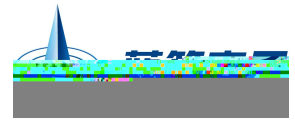
Model	BRBAT54Q	BRBAT54AQ	BRBAT54CQ	BRBAT54SQ
Marking	QL4P	QL42	QL43	QL44



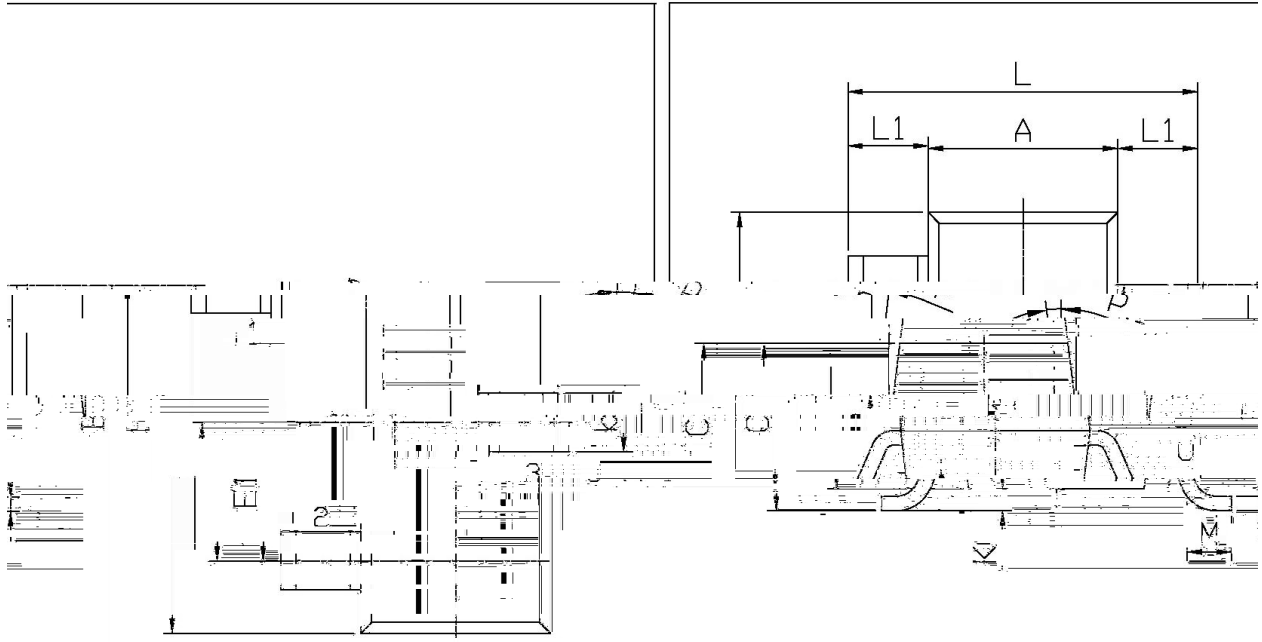
V W Parameter	Symbol	W Rating	x y Unit
Repetitive Reverse Voltage	$V_{RRM}$	30	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	600	mA
Power Dissipation	$P_D$	290	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	430	$^{\circ}C/W$
Junction Temperature	$T_j$	-40~150	$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55~150	$^{\circ}C$

V W Parameter	Symbol	z {   } Test Conditions	Min	~ Typ	€ Max	x y Unit
Breakdown Voltage	$V_R$	$I_R=10\mu A$	30			V
Forward Voltage	$V_F$	$I_F=0.1mA$			240	mV
		$I_F=1.0mA$			320	mV
		$I_F=10mA$			400	mV
		$I_F=30mA$			500	mV
		$I_F=100mA$			0.8	V
Instantaneous Reverse Current	$I_R$	$V_R=25V$			2.0	$\mu A$
Total Capacitance	$C_T$	$V_R=1.0V$ f=1.0MHz			10	pF

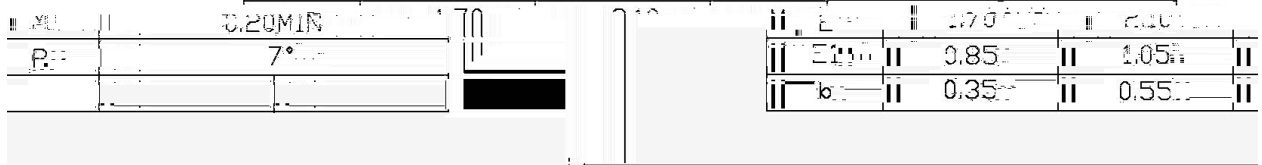


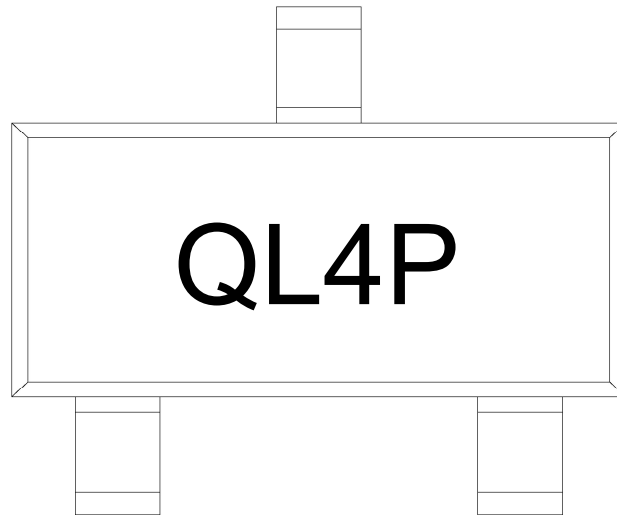
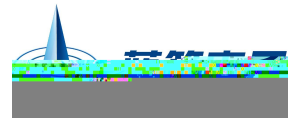


单位: mm



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





, f

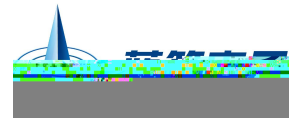
Q

L4P

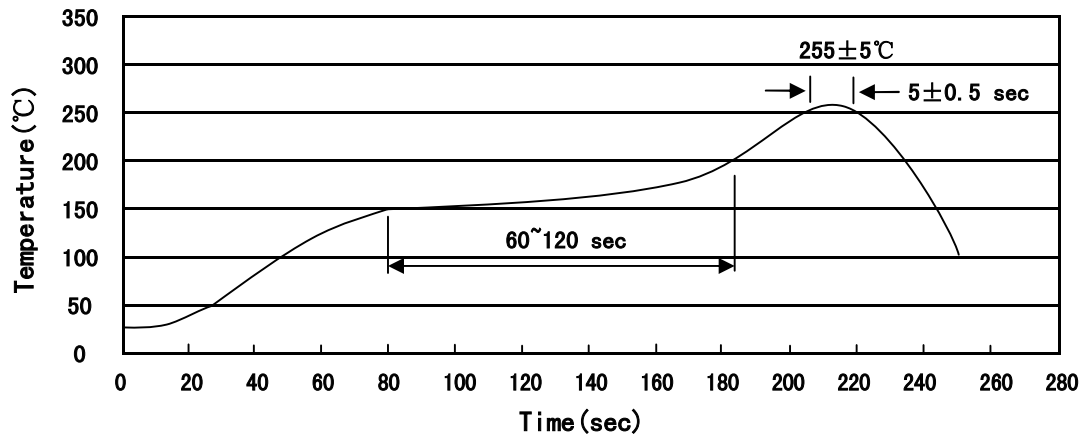
Note:

Q: Automobile halogen-free product Code

L4P: Product Type Code



Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

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

260±5°C                    10±1 sec.                    Temp.:260±5°C                    Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205