

/ Revised record

G	2018-3				
H	2020-6-18	1			
A	2022-4-23	all	BR/Q AEC-Q101 , H Q 245±5°C 5±0.5sec 255±5°C 0.5sec 5±		
B	2022-7-18	2	TJ -40°C		

/ Descriptions

SOT-23 Schottky diodes in a SOT-23 Plastic Package.

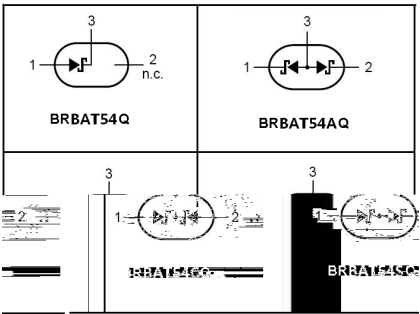
/ Features

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

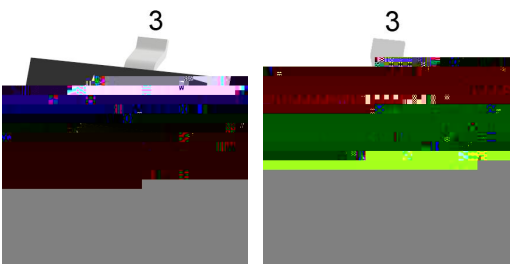
/ Applications

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

/ Equivalent Circuit



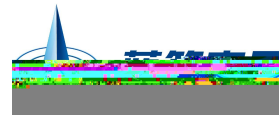
/ Pinning



PIN: See Equivalent Circuit.

/ Marking

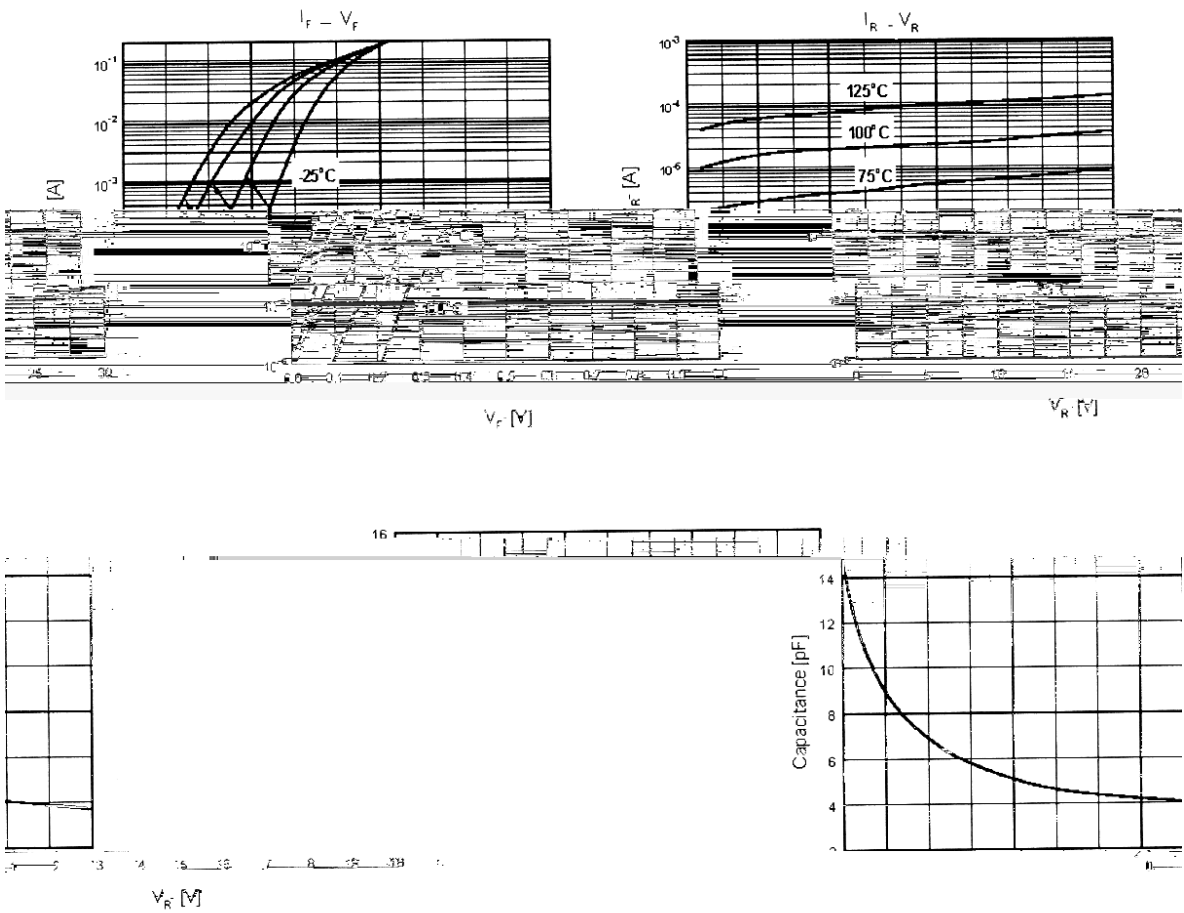
Model	BRBAT54Q	BRBAT54AQ	BRBAT54CQ	BRBAT54SQ
Marking	QL4P	QL42	QL43	QL44

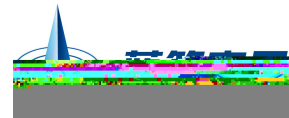


Parameter	Symbol	Rating	Unit
Repetitive Reverse Voltage	V_{RRM}	30	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	600	mA
Power Dissipation	P_D	290	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	430	$^{\circ}C/W$
Junction Temperature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

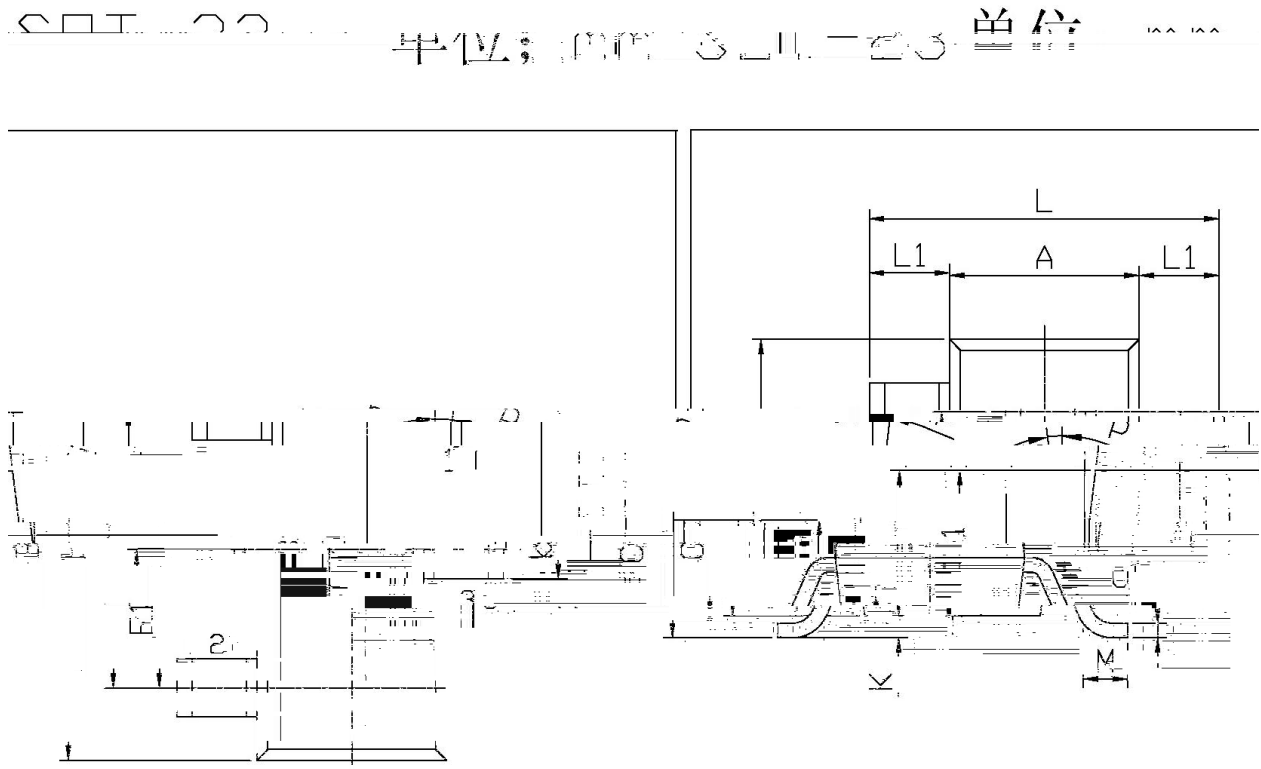
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_R	$I_R=10\mu A$	30			V
Forward Voltage	V_F	$I_F=0.1mA$			240	mV
		$I_F=1.0mA$			320	mV
		$I_F=10mA$			400	mV
		$I_F=30mA$			500	mV
		$I_F=100mA$			0.8	V
Instantaneous Reverse Current	I_R	$V_R=25V$			2.0	μA
Total Capacitance	C_T	$V_R=1.0V$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

/ Electrical Characteristic Curve



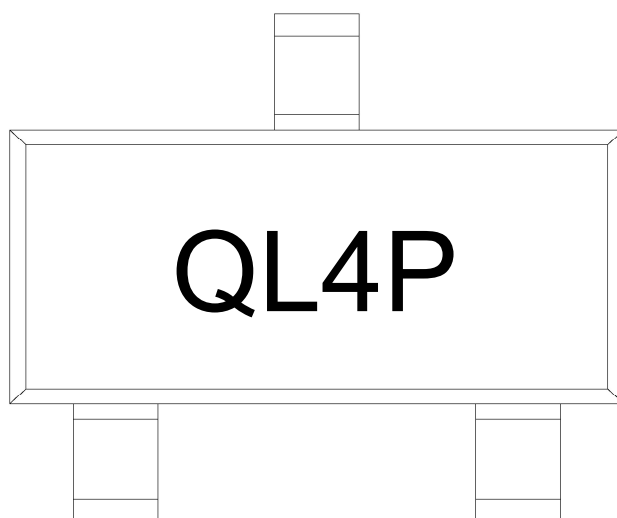


/ Package Dimensions



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
E1	0.85	1.05	P	0.20MIN	7°
b	0.35	0.55			

/ Marking Instructions



— °

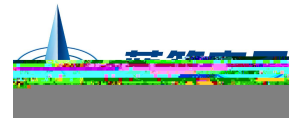
Q ±

L4P 2

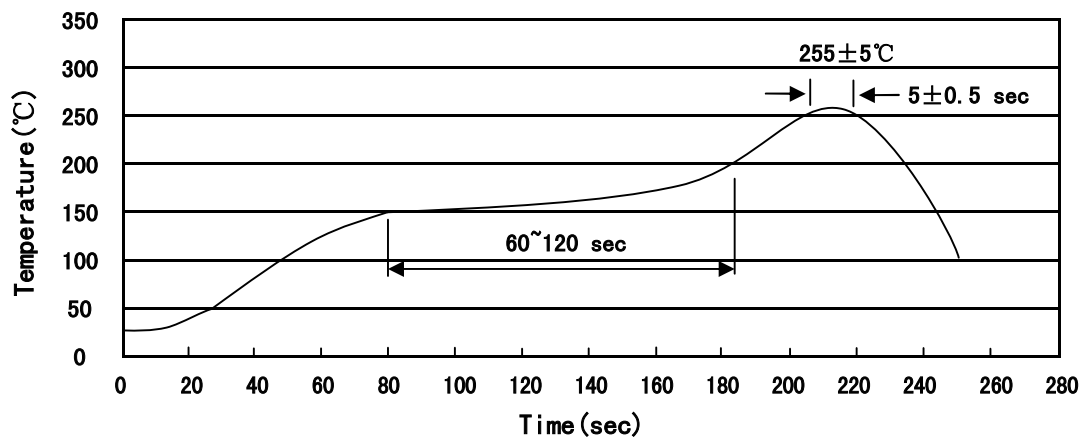
Note:

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.

/ Resistance to Soldering Heat Test Conditions

260±5°C

10±1 sec.

Temp.:260±5°C

Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	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

/ Notices