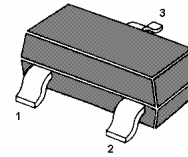


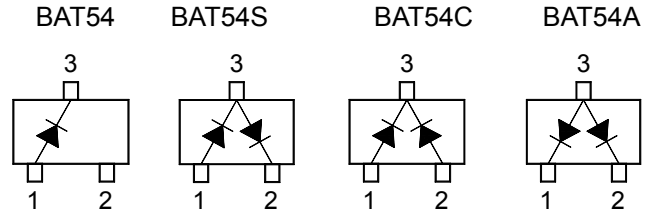
# BAT54 / A / C / S

## SCHOTTKY DIODES

SOT-23



BAT54 Marking Code: **L4**  
 BAT54A Marking Code: **L42**  
 BAT54C Marking Code: **L43**  
 BAT54S Marking Code: **L44**



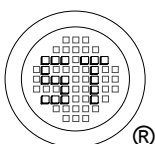
### Absolute Maximum Ratings<sup>1)</sup> (T<sub>a</sub> = 25°C)

Parameter	Symbol	Limits	Unit
Repetitive peak reverse voltage	V <sub>RRM</sub>	30	V
Average rectified forward current	I <sub>F(AV)</sub>	200	mA
Non-repetitive peak forward surge current at Pulse width=1.0 second	I <sub>FSM</sub>	600	mA
Power dissipation	P <sub>tot</sub>	290	mW
Thermal resistance junction to ambient air	R <sub>θJA</sub>	430	°C/W
Junction temperature	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>S</sub>	-55 to +150	°C

<sup>1)</sup> These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Characteristics at T<sub>a</sub> = 25°C

Parameter	Symbol	Min.	Max.	Unit
Forward voltage at I <sub>F</sub> = 0.1mA	V <sub>F</sub>	-	240	mV
at I <sub>F</sub> = 1mA	V <sub>F</sub>	-	320	mV
at I <sub>F</sub> = 10mA	V <sub>F</sub>	-	400	mV
at I <sub>F</sub> = 30mA	V <sub>F</sub>	-	500	mV
at I <sub>F</sub> = 100mA	V <sub>F</sub>	-	1000	mV
Reverse current at V <sub>R</sub> = 25V	I <sub>R</sub>	-	2	μA
Breakdown voltage at I <sub>R</sub> = 10μA	V <sub>R</sub>	30	-	V
Total capacitance at V <sub>R</sub> = 1V, f = 1MHz	C <sub>tot</sub>	-	10	pF
Reverse recovery time at I <sub>F</sub> = 10mA, I <sub>R</sub> = 10mA, I <sub>RR</sub> = 1mA, R <sub>L</sub> = 100Ω	t <sub>rr</sub>	-	5	ns



**SEMTECH ELECTRONICS LTD.**

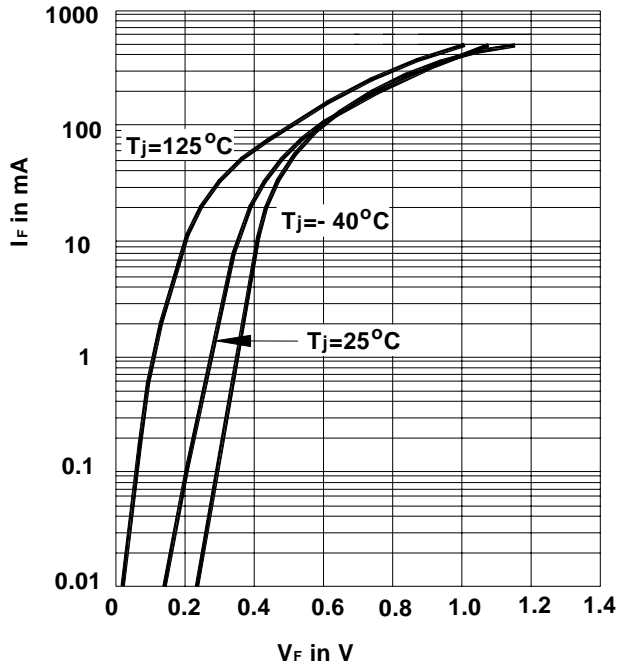
(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



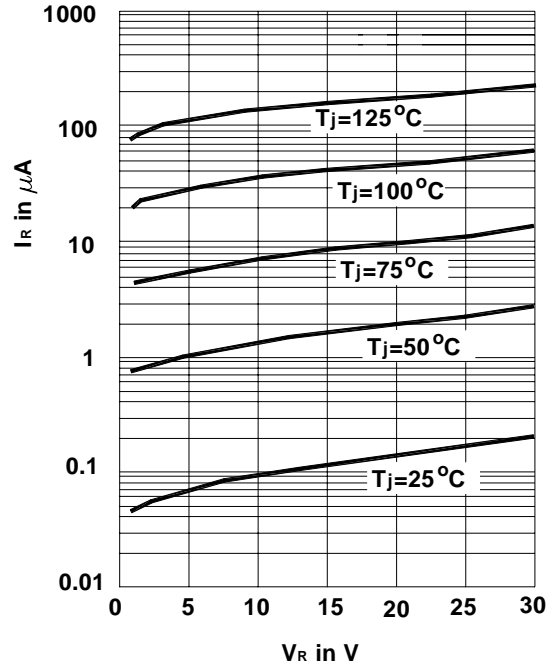
ISO/TS 16949 : 2002 Certificate No. 05103  
 ISO 14001:2004 Certificate No. 7116  
 ISO 9001:2000 Certificate No. 0506098

Dated : 19/10/2005

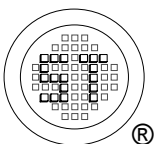
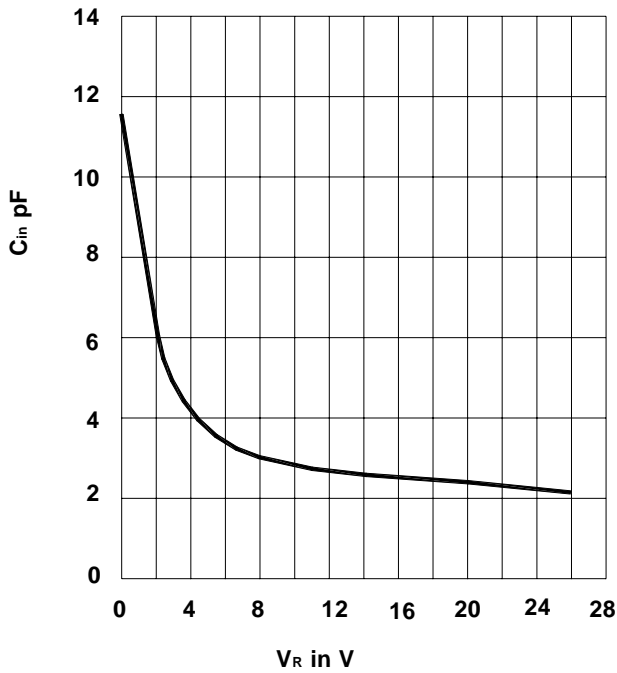
**Typical Forward Voltage  
Forward Current  
at Various Temperatures**



**Typical Variation of Reverse  
Current at Various Temperatures**



**Typical Capacitance  $^\circ\text{C}$  vs.  
Reverse Applied Voltage  $V_R$**



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