

SOT23 SILICON EPITAXIAL SCHOTTKY BARRIER DIODES

BAT54 SERIES

ISSUE 1- SEPTEMBER 1995 ☉

BAT54	BAT54A	BAT54S	BAT54C	Device Type
SINGLE	COMMON ANODE	SERIES	COMMON CATHODE	Pin Configuration
L4Z	L42	L44	L43	Partmarking Detail

FEATURES: Low V_F & High Current Capability

APPLICATIONS: PSU, Mobile Telecomms & SCSI

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	30	V
Forward Current	I_F	200	mA
Forward Voltage @ $I_F=10\text{mA}$	V_F	400	mV
Repetitive Peak Forward Current	I_{FRM}	300	mA
Non Repetitive Forward Current $t < 1\text{s}$	I_{FSM}	600	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	330	mW
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$
Junction Temperature \square	T_j	125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Reverse Breakdown Voltage	$V_{(BR)R}$	30	50		V	$I_R=10\mu\text{A}$
Forward Voltage	V_F		135 200 280 350 530	240 320 400 500 1000	mV mV mV mV mV	$I_F=0.1\text{mA}$ $I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=30\text{mA}$ $I_F=100\text{mA}$
Reverse Current	I_R		2.5	4	μA	$V_R=25\text{V}$
Diode Capacitance	C_D		7.5	10	pF	$f=1\text{MHz}, V_R=1\text{V}$
Reverse Recover Time	t_{rr}			5	ns	switched from $I_F=10\text{mA}$ to $I_R=10\text{mA}$ $R_L=100\Omega$, Measured at $I_R=1\text{mA}$

\square Dual Device; For simultaneous continuous use $T_j=100^\circ\text{C}$.

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TYPICAL CHARACTERISTICS

