

# 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.

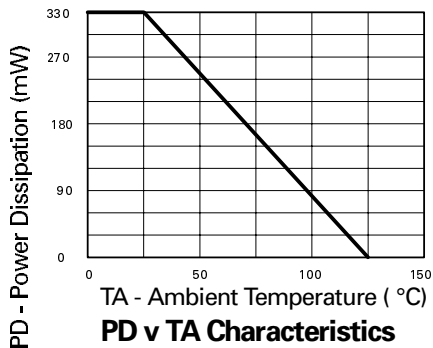
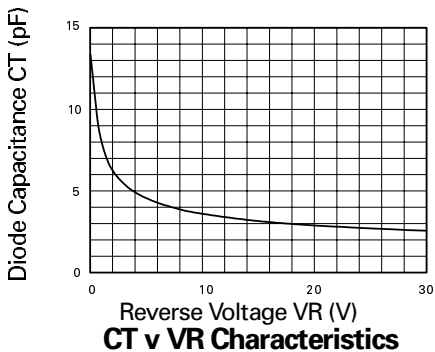
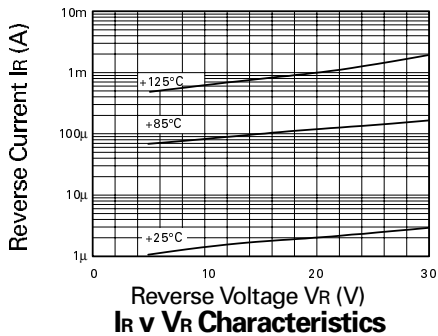
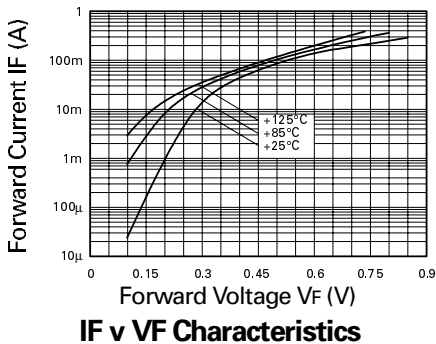
PARAMETER	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	$V_R$	30	V
Forward Current	$I_F$	200	mA
Forward Voltage @ $I_F = 10\text{mA}$	$V_F$	400	mV
Repetitive Peak Forward Current	$I_{FRM}$	300	mA
Non Repetitive Forward Current $t < 1\text{s}$	$I_{FSM}$	600	mA
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	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	$\mu\text{A}$	$V_R = 25\text{V}$
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  $T_j = 100^\circ\text{C}$ .

## TYPICAL CHARACTERISTICS



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