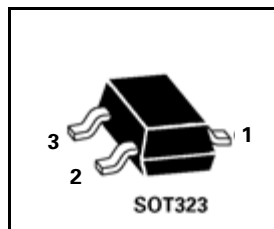


# SOT323 SILICON EPITAXIAL SCHOTTKY BARRIER DIODES

ISSUE 1– DECEMBER 1998

## ZUMD54 ZUMD54C

<b>SINGLE</b>	<b>COMMON CATHODE</b>
ZUMD54	ZUMD54C
Partmark: D8	Partmark: D8C



**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	$^\circ\text{C}$

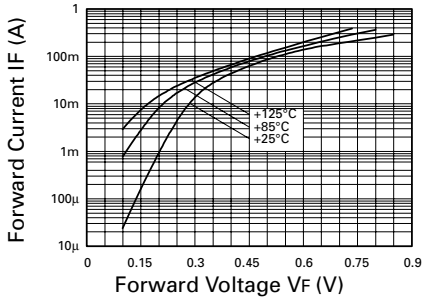
### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

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	$I_R$		1.4	2	$\mu\text{A}$	$V_R = 25\text{V}$
Diode Capacitance	$C_D$		7.5	10	pF	$f = 1\text{MHz}, V_R = 1\text{V}$
Reverse Recovery Time	$t_{rr}$			5	ns	switched from $I_F = 10\text{mA}$ to $I_R = 10\text{mA}$ $R_L = 100\Omega, I_R = 1\text{mA}$

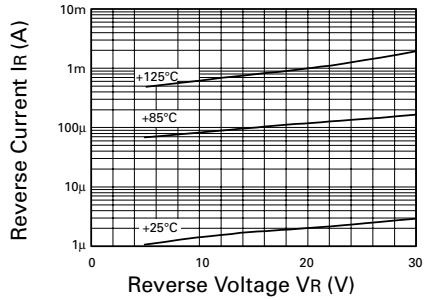
$\square$  Dual Device; For simultaneous continuous use  $T_j = 100^\circ\text{C}$ .

# ZUMD54 ZUMD54C

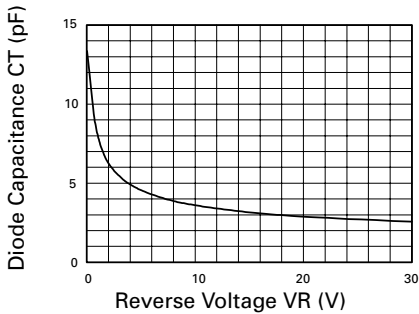
## TYPICAL CHARACTERISTICS



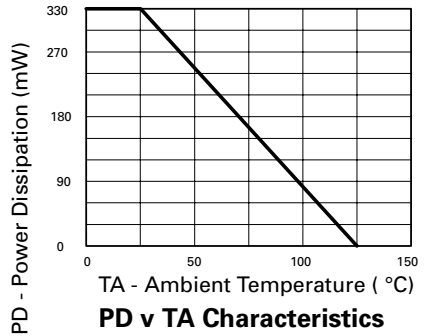
**$I_F$  v  $V_F$  Characteristics**



**$I_R$  v  $V_R$  Characteristics**



**$C_T$  v  $V_R$  Characteristics**



TA - Ambient Temperature (  $^\circ\text{C}$  )

**PD v  $T_A$  Characteristics**