SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE **- 30** Volts
FORWARD CURRENT **- 200**m Amperes

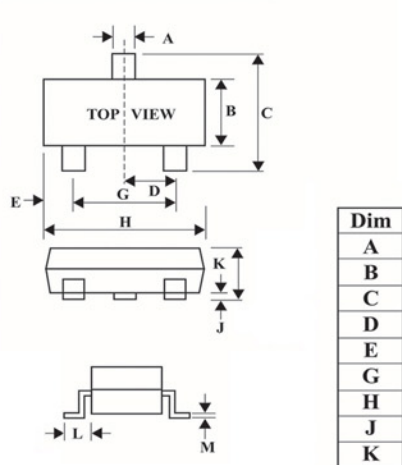
FEATURES

- Extremely Fast Switching Speed
- Low forward Voltage
- Very Small Conduction Losses
- Schottky Barrier Diodes Encapsulated in a SOT-23 Package

MECHANICAL DATA

- These schottky barrier diodes are designed for high speed switching applications circuit protection, and voltage clamping, Extremely low forward voltage reduces conduction loss, Miniature surface mount package is excellent for hand held and portable applications where space is limited.

SOT-23



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	BAT54/C/A/S			UNIT
Reverse Voltage	V_R	30			V
Average Rectifier Forward Current	$I_{F(AV)}$	200			A
Peak Repetitive Forward Current Rated V_R, Square Wave, 20KHz	I_{FRM}	400			A
Operating Junction Temperature Range	T_J	-55 to +125			°C
Storage Temperature Range	T_{STG}	-55 to +150			°C
CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (I_R=10uA)	$V_{(BR)R}$	30	-	-	V
Forward Voltage I_F=0.1mA I_F=1.0mA I_F=10mA I_F=30mA I_F=100mA	V_F	-	 0.22 0.29 0.35 0.41 0.52	 0.24 0.32 0.40 0.50 1.00	V
Total Capacitance (V_R=1.0V, f=1.0MHz)	C_T	-	7.6	10	PF
Reverse Leakage V_R=25V	I_R	-	0.5	2.0	uAdc
Reverse Recover Time I_F=I_R=10mA, $I_{R(Rec)}$=1.0mA	Trr	-	-	5.0	nS

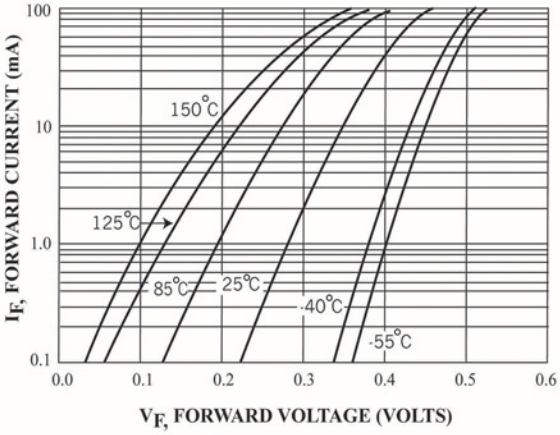


Figure . Forward Voltage

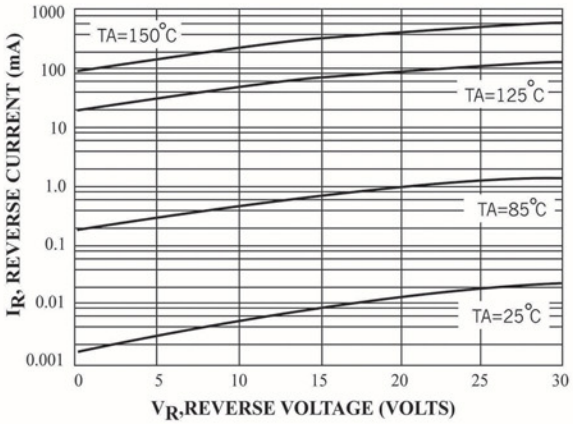


Figure 3. Leakage Current

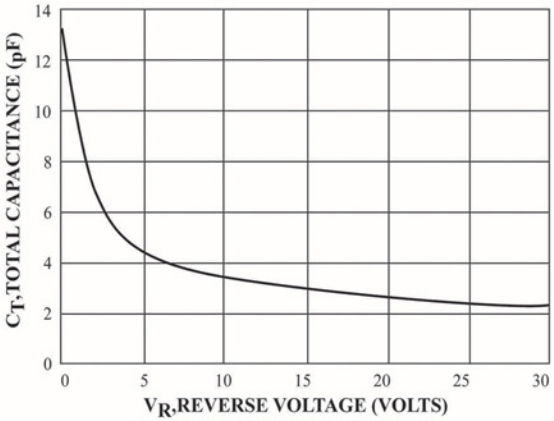


Figure 4. Toral Capacitance