Elektronische Bauelemente

BAT54X

0.2A , 30V

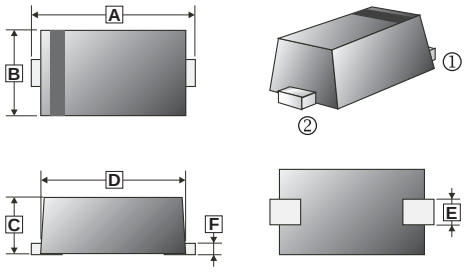
Surface Mount Schottky Barrier Diode

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low Forward Voltage Drop
- Extremely Fast Switching Speed
- Low Reverse Capacitance

SOD-523



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.50	1.70	D	1.10	1.30
B	0.70	0.90	E	0.25	0.35
C	0.50	0.77	F	0.07	0.20

MARKING:

JV

B

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-523	3K	7 inch

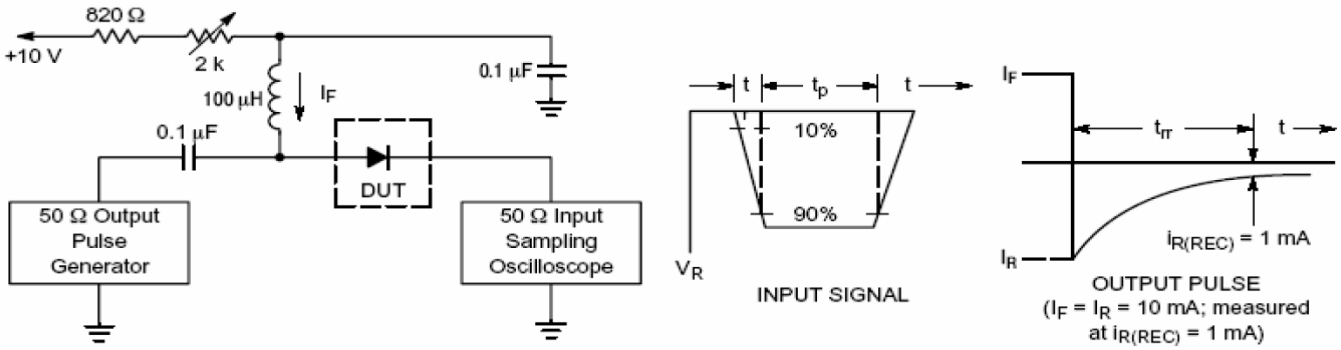
ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Non-repetitive peak reverse voltage	V_{RM}	30	V
DC Blocking Voltage	V_R	21	V
Forward current	I_F	200	V
Repetitive Peak Forward Current	I_{FRM}	300	mA
Non-repetitive peak forward current@ t=1μs	I_{FSM}	600	mA
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	635	°C / W
Storage temperature	T_J, T_{STG}	125, -40~125	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Teat Conditions
Reverse breakdown voltage	$V_{(BR)R}$	30	-		V	I_R= 100μA
Reverse current	I_R	-	0.5	2	μA	V_R=25V
Forward voltage	V_F	-	0.22	0.24	V	I_F=0.1mA
		-	0.29	0.32		I_F=1mA
		-	0.35	0.4		I_F=10mA
		-	0.41	0.5		I_F=30mA
		-	0.52	1		I_F=100mA
Capacitance between terminals	C_T	-	7.6	-	pF	V_R=1V, f=1MHz
Reveres recovery time	T_{RR}	-	-	5	nS	I_F=10mA, I_R=10mA ~1mA R_L=100Ω

RATINGS AND CHARACTERISTIC CURVES



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10 mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

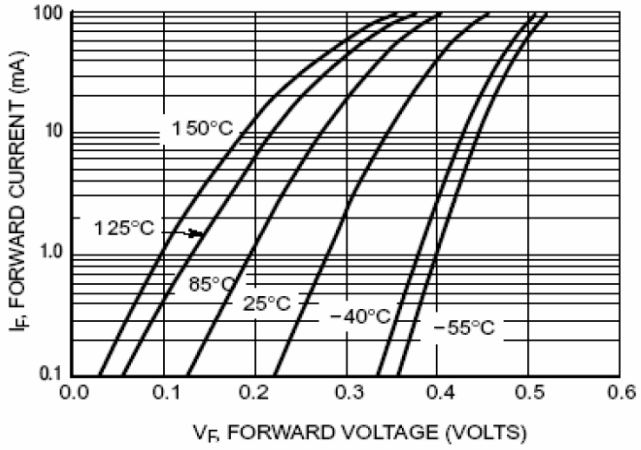


Figure 2. Forward Voltage

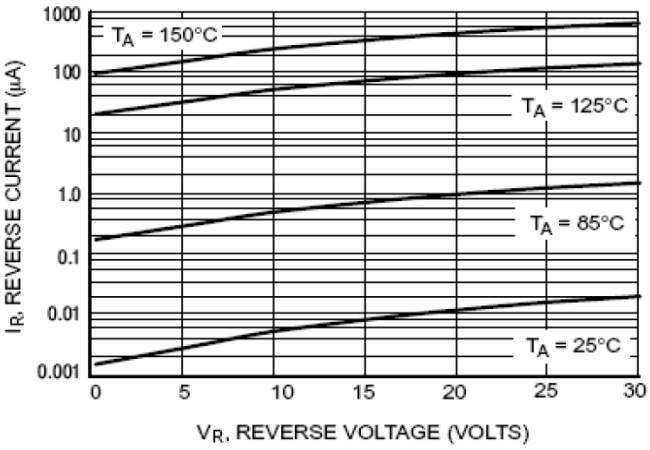


Figure 3. Leakage Current

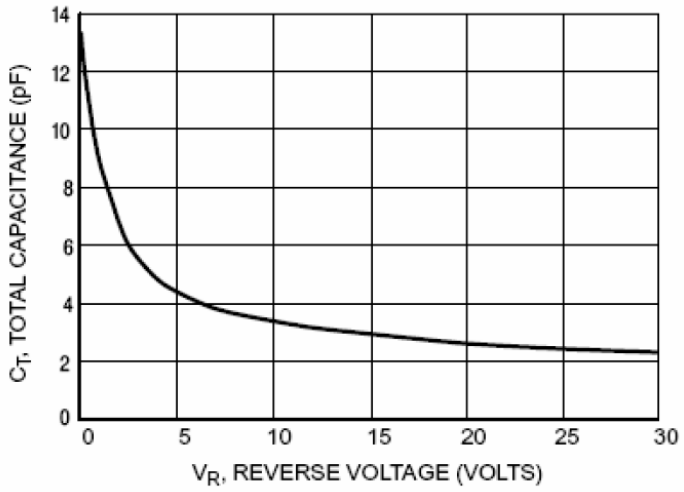


Figure 4. Total Capacitance