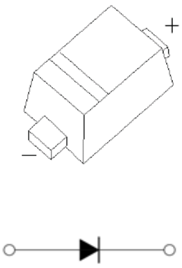
BAT30WT SCHOTTKY BARRIER DIODE

SOD-523



FEATURES

- Low capacitance diode
- Very low conduction losses
- Low forward and reverse recovery times

MARKING: 30

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Forward Current	I_F	300	mA
Repetitive Peak Forward Current T_a = 85 °C, δ = 0.1	I_{FRM}	0.9	A
Peak Forward Surge Current (tp = 10 ms)	I_{FSM}	1	A
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	125	℃
Storage Temperature Range	T_{stg}	- 65 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient 1)	$R_{θJA}$	500	℃/W

1) Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Characteristics at $T_a = 25$℃

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 µA	$V_{(BR)R}$	30	-	-	V
Forward Voltage	V_F				mV
at I_F = 0.1 mA		-	-	240	
at I_F = 1 mA		-	-	300	
at I_F = 10 mA		-	-	375	
at I_F = 30 mA		-	-	430	
at I_F = 100 mA		-	-	500	
at I_F = 200 mA		-	-	580	
Reverse Current	I_R				µA
at V_R = 5 V		-	-	0.5	
at V_R = 10 V		-	-	1	
at V_R = 25 V		-	-	3	
at V_R = 30 V		-	-	5	
at V_R = 10 V, Tj = 85℃		-	18	-	
Total Capacitance	C_T				pF
at V_R = 0 V, f = 1 MHz		-	22	-	
at V_R = 1 V, f = 1 MHz		-	14	-	
at V_R = 10 V, f = 1 MHz		-	6	-	

Typical Characteristics

Fig 1. Reverse Characteristic Curve

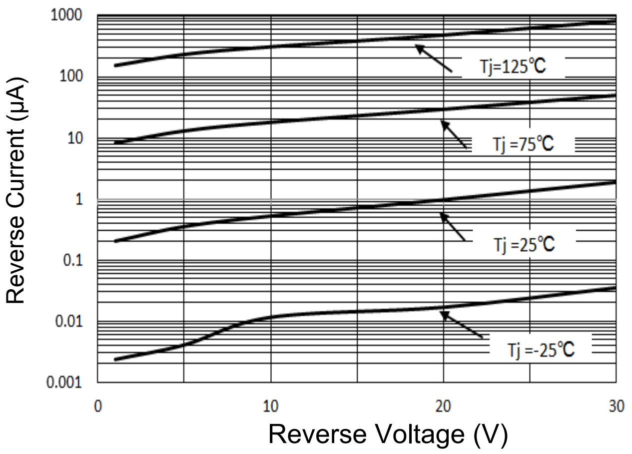


Fig 2. Forward Characteristic Curve

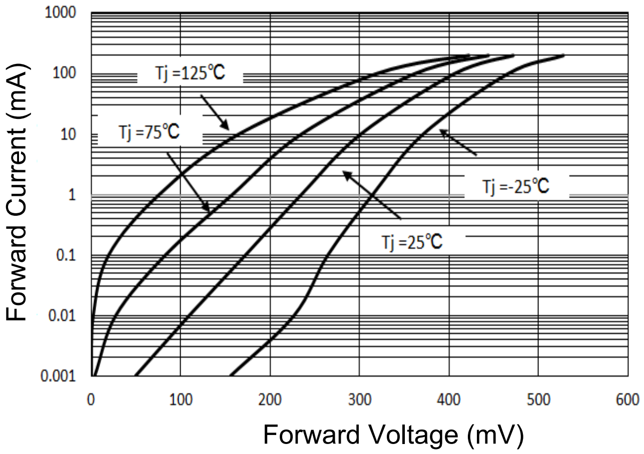


Fig 3. Junction Capacitance

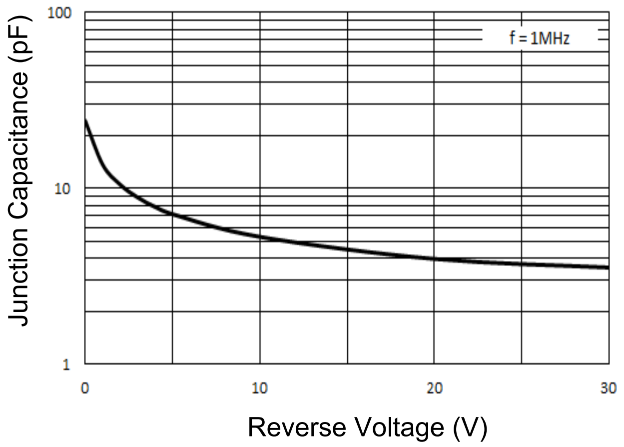


Fig 4. Forward Current Derating Curve