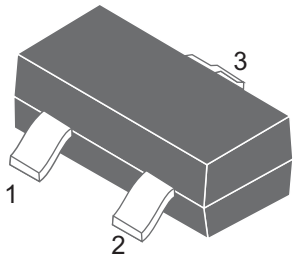
BAR43C

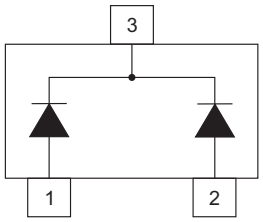
SCHOTTKY BARRIER DIODE

Features

- We declare that the material of product compliance with RoHS requirements and Halogen Free
- Extremely Fast Switching Speed
- Low Forward Voltage — 0.35 Volts (Typ) @ I_F = 10 mAdc



SOT-23



Maximum & Thermal Characteristics Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
DC Reverse Voltage	V_R	30	V
Forward Current	I_F	200	mAdc
Total Device Dissipation, FR−5 Board (1) @ T_A = 25°C Derate above 25°C	P_D	225 1.8	mW mW/°C
Thermal Resistance,Junction–to–Ambient(1)	$R_{\theta JA}$	556	°C/W
Junction and Storage temperature	T_J,T_{STG}	-55~+125	°C

Note :1.FR–5 = 1.0×0.75×0.062 in.

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage(I_R = 10μAdc)	V_{BR}	30			V
Reverse Voltage Leakage Current(V_R = 25Vdc)	I_R		0.5	2	μA
Diode Capacitance(V_R =1.0V , f = 1.0 MHz)	C_T			10	pF
Forward Voltage	V_F				V
(IF = 0.1 mAdc)			0.22	0.24	
(IF = 1 mAdc)			0.29	0.32	
(IF = 10 mAdc)			0.35	0.4	
(IF = 30 mAdc)			0.41	0.5	
(IF = 100 mAdc)			0.52	1	
Reverse Recovery Time (I_F = I_R = 10 mAdc, I_R(REC) = 1.0 mAdc)	t_{rr}			5	ns
Repetitive Peak Forward Current	I_{FRM}			300	mA
Non–Repetitive Peak Forward Current(t < 1.0 s)	I_{FSM}			600	mA

Characteristic Curves (T_A=25°C unless otherwise noted)

Fig.1 I_F vs. V_F

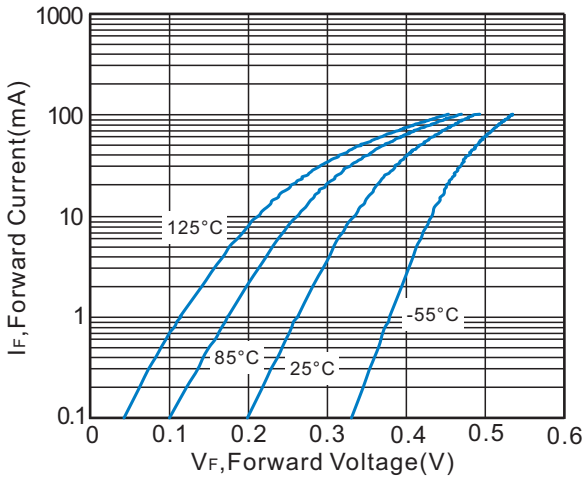


Fig.2 I_R vs. V_R

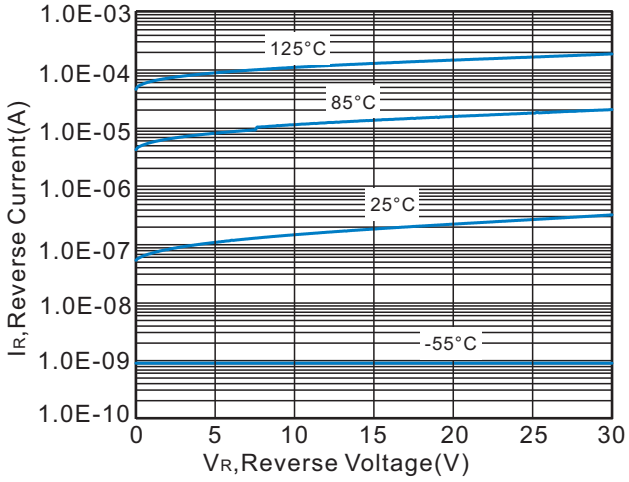
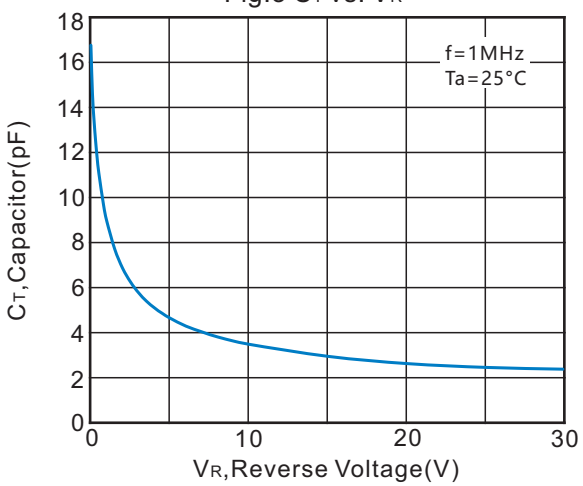
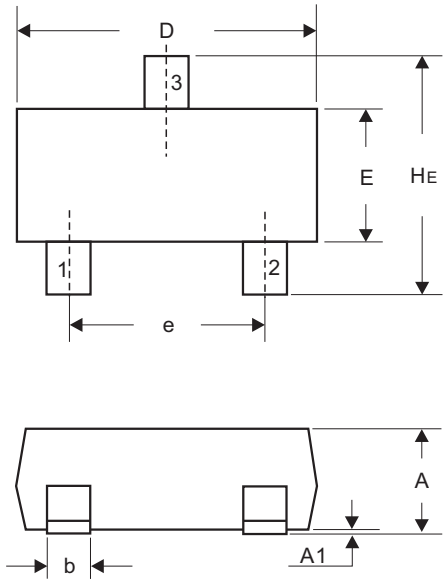


Fig.3 C_T vs. V_R



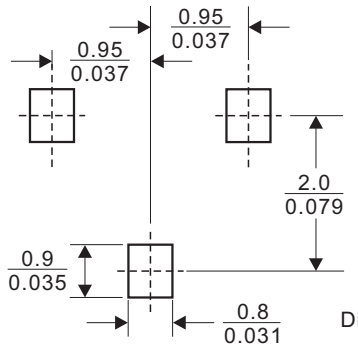
Dimensions(SOT-23)

SOT-23



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.89	1.11	0.035	0.044
A1	0.01	0.10	0.001	0.004
b	0.37	0.50	0.015	0.020
c	0.09	0.18	0.003	0.007
D	2.80	3.04	0.110	0.120
E	1.20	1.40	0.047	0.055
e	1.78	2.04	0.070	0.081
L	0.35	0.69	0.014	0.029
HE	2.10	2.64	0.083	0.104

Recommended Mounting Pad Layout



Dimensions in (millimeters / inches)