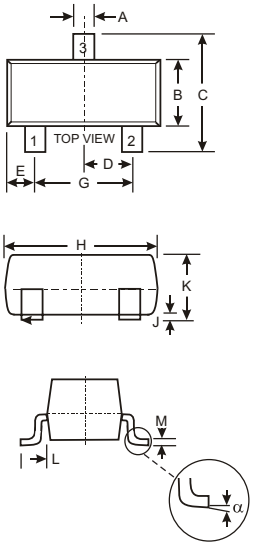
HAICHUANG SEMI

BAV70

DUAL SURFACE MOUNT SWITCHING DIODE

Features

- Low Forward Voltage
- Small package
- Fast reverse recovery time
- Marking Code:A4

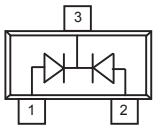


SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Forward Current	I_O	200	mA
Maximum Peak Forward Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current at t = 1 s at t = 1 μs	I_{FSM}	1 2	A
Power Dissipation	P_d	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Equivalent Circuit



Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage				
at I_F = 1 mA	V_F	-	715	mV
at I_F = 10 mA	V_F	-	855	mV
at I_F = 50 mA	V_F	-	1	V
at I_F = 150 mA	V_F	-	1.25	V
Reverse Current				
at V_R = 20V	I_R		25	nA
at V_R = 75 V	I_R	-	2.5	μA
at V_R = 25 V, T_J = 150 °C	I_R	-	30	μA
at V_R = 75 V, T_J = 150 °C	I_R	-	50	μA
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	75	-	V
Total Capacitance at V_R = 0 , f = 1 MHz	C_T	-	2	pF
Reverse Recovery Time at I_F = 10 mA, V_R = 6 V, I_{RR} = 1 mA, R_L = 100 Ω	t_{rr}	-	4	ns

TYPICAL TRANSIENT CHARACTERISTICS

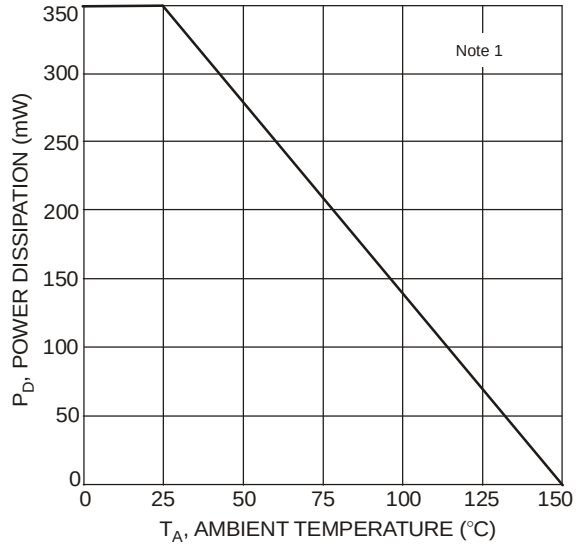


Fig. 1 Power Derating Curve, Total Package

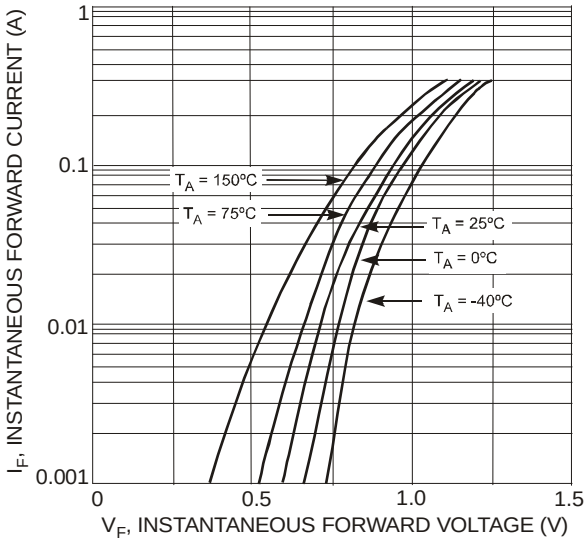


Fig. 2 Typical Forward Characteristics, Per Element

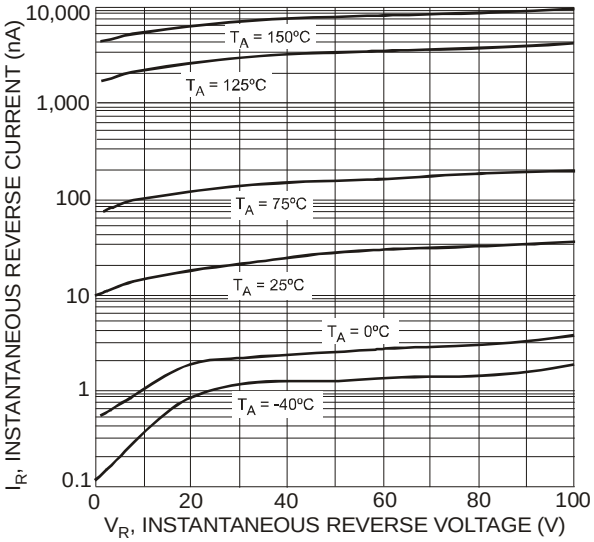


Fig. 3 Typical Reverse Characteristics, Per Element

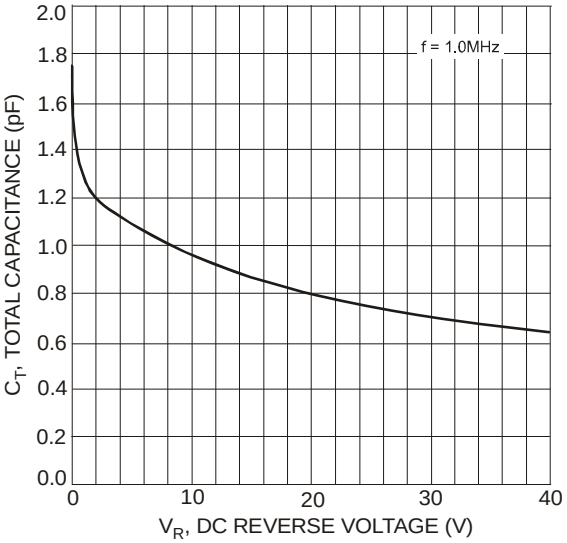


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

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