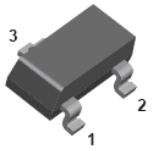
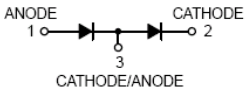
BAV99

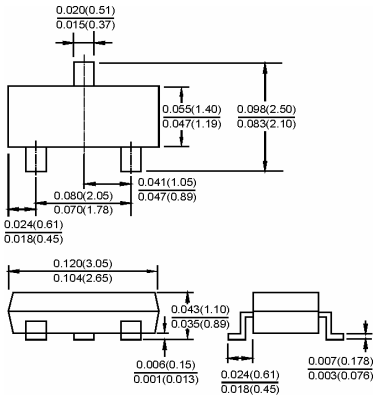
Dual Series Switching Diode

RoHS COMPLIANT





SOT-23



Dimensions in inches and (millimeters)

Features

- ✧ Fast switching speed Max:6ns
- ✧ High conductance
- ✧ Connected in series
- ✧ Surface mount package ideally suited for automatic insertion

Applications

- ✧ Small signal switching

Ordering Information

Type No.	Marking	Package Code
BAV99	A 7	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	85	V
Continuous Reverse voltage	V_R	75	V
Peak forward surge current @t=1.0μs @t=1.0ms @t=1.0s	I_{FSM}	4 1 0.5	A
Forward continuous current single diode loaded double diodes loaded	I_F	215 125	mA
Non-Repetitive peak forward current	I_{FRM}	450	mA
Power dissipation	P_d	250	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	500	℃/W
Operating and storage temperature range	T_j,T_{STG}	-65 to 150	℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	I_R= 2.5μA	75		V
Reverse voltage leakage current	I_R	V_R=25V V_R=75V V_R=25V T_j=150℃ V_R=75V T_j=150℃		35 1 30 50	nA μA μA μA
Forward voltage	V_F	I_F=1mA I_F=10mA I_F=50mA I_F=150mA		715 855 1000 1250	mV
Diode capacitance	C_D	V_R=0V f=1MHz		1.5	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA, I_{rr}=0.1×I_R,R_L=100Ω		6	nS

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

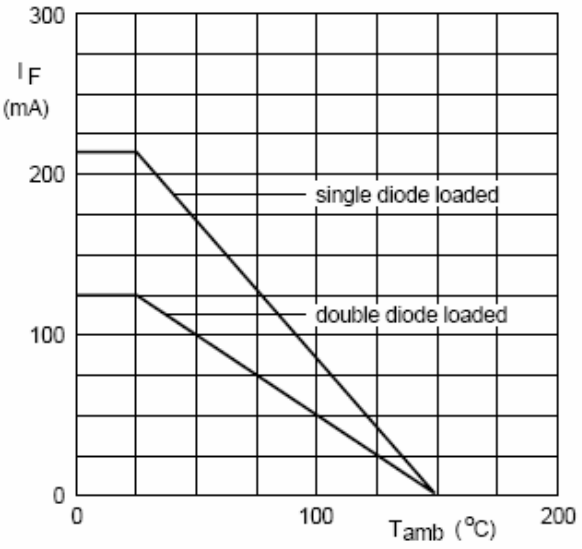
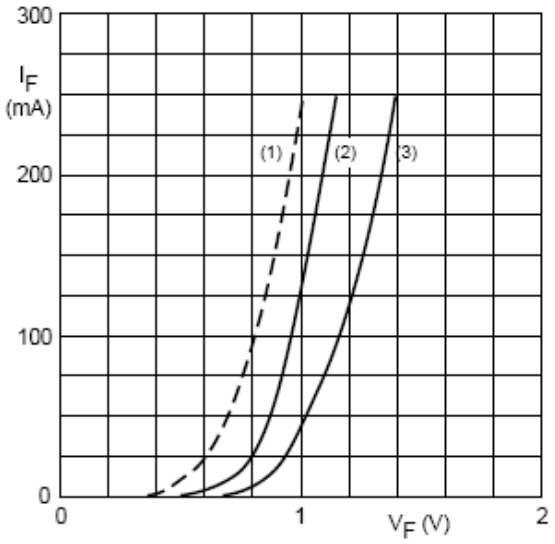


Fig.2 Maximum permissible continuous forward current as a function of ambient temperature.



(1) T_j = 150 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C; maximum values.

Fig.3 Forward current as a function of forward voltage.

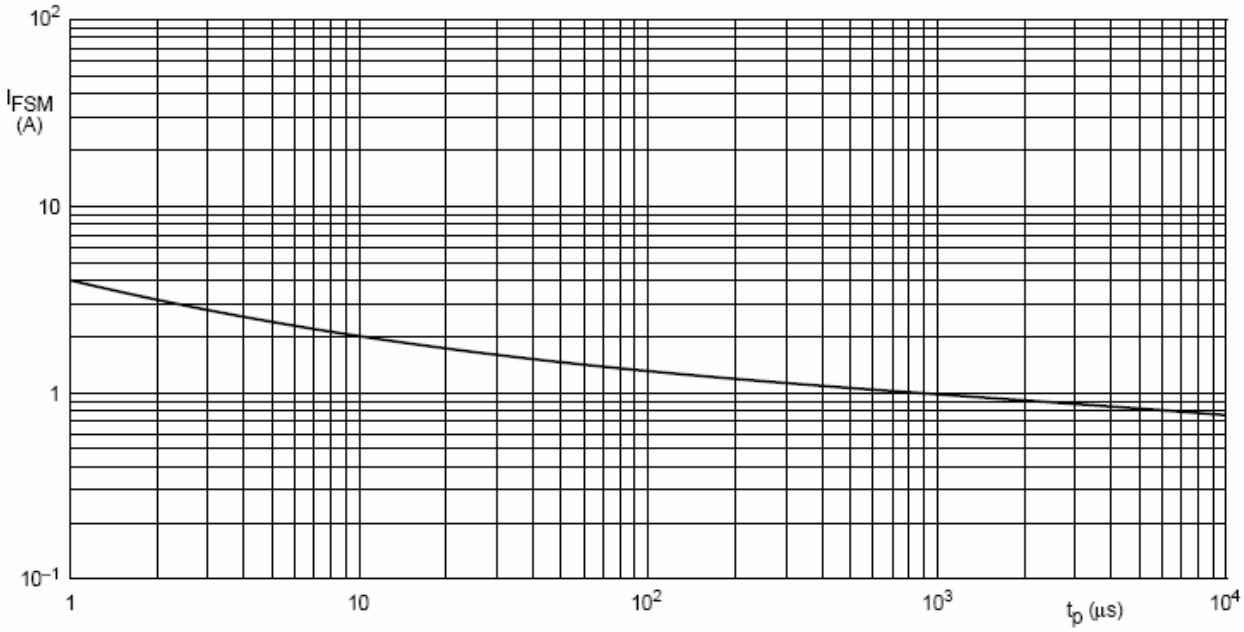


Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

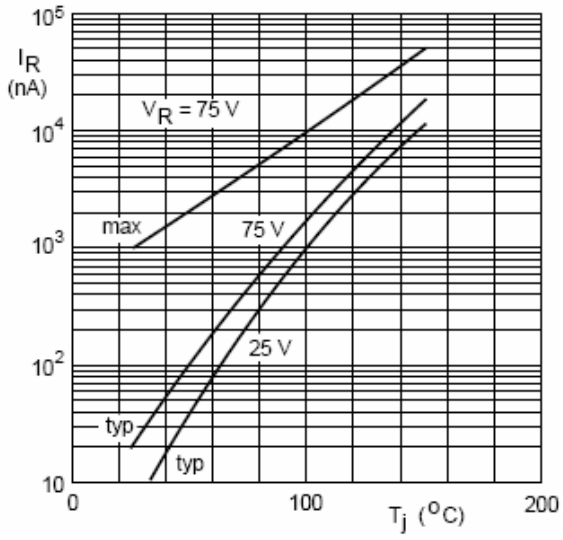


Fig.5 Reverse current as a function of junction temperature.

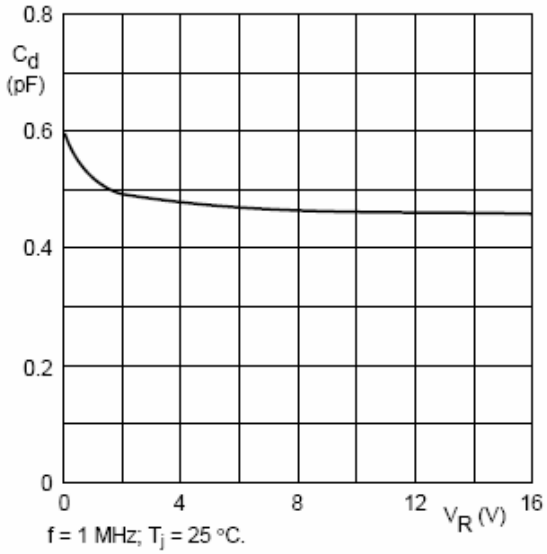


Fig.6 Diode capacitance as a function of reverse voltage; typical values.

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOT-23	3000/REEL	90000	40X20X22	5.00	4.00