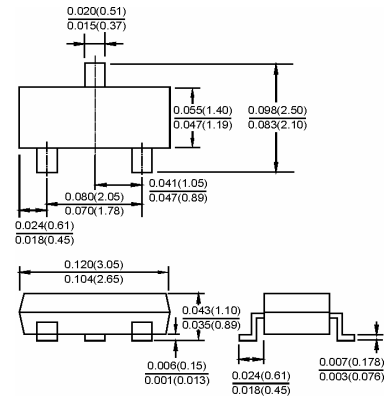


SOT-23



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°C 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	I_{FSM}	4	A
@t=1.0ms		1	
@t=1.0s		0.5	
Forward continuous current single diode loaded	I_F	215	mA
double diodes loaded		125	
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	°C/W
Operating and storage temperature range	T_j, T_{STG}	-65 to 150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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

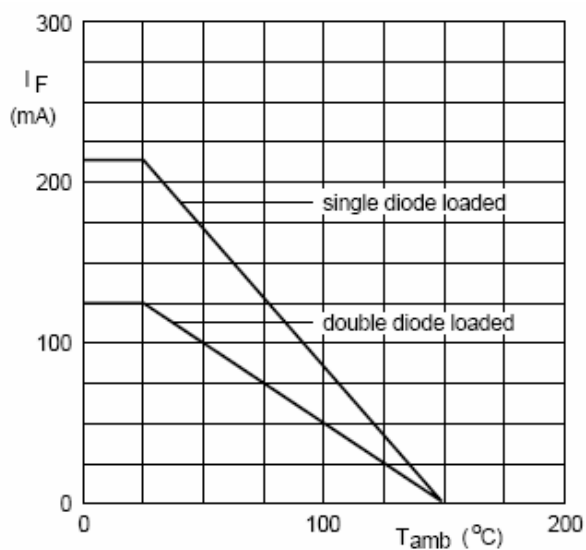
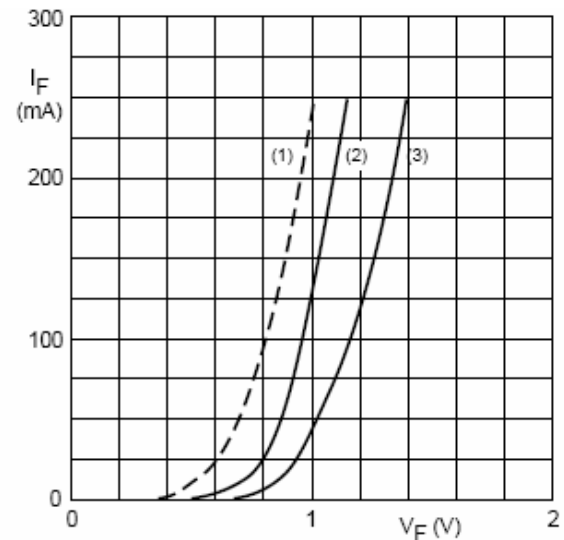
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified


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



- (1) $T_j = 150^\circ C$; typical values.
- (2) $T_j = 25^\circ C$; typical values.
- (3) $T_j = 25^\circ C$; maximum values.

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

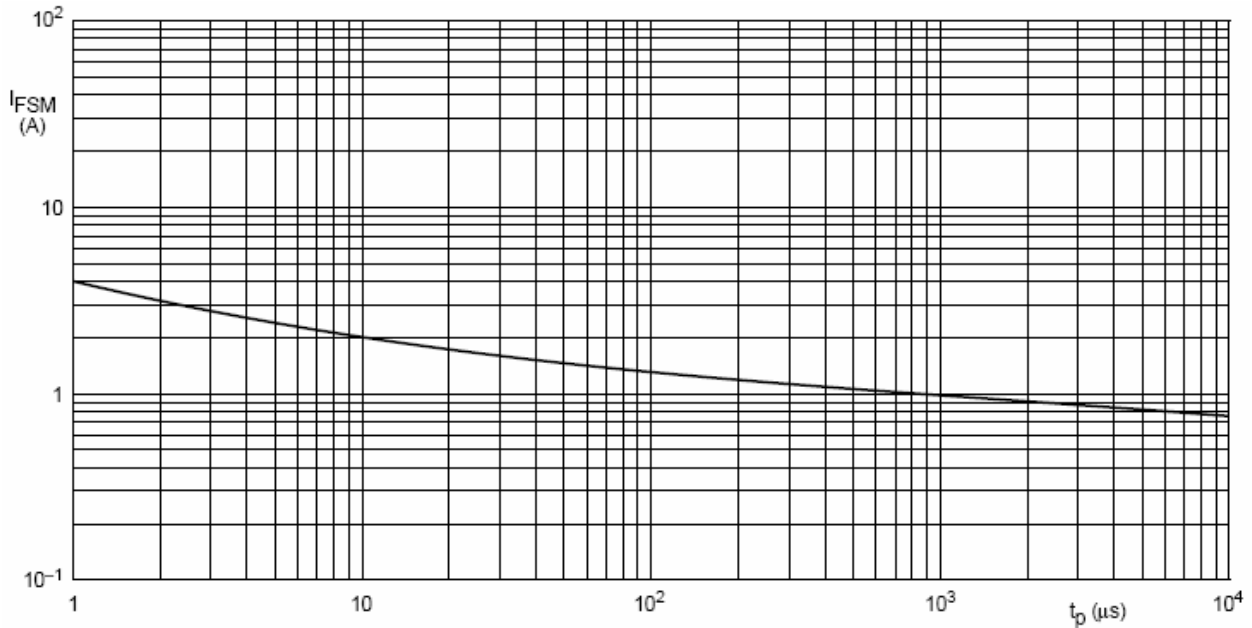


Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

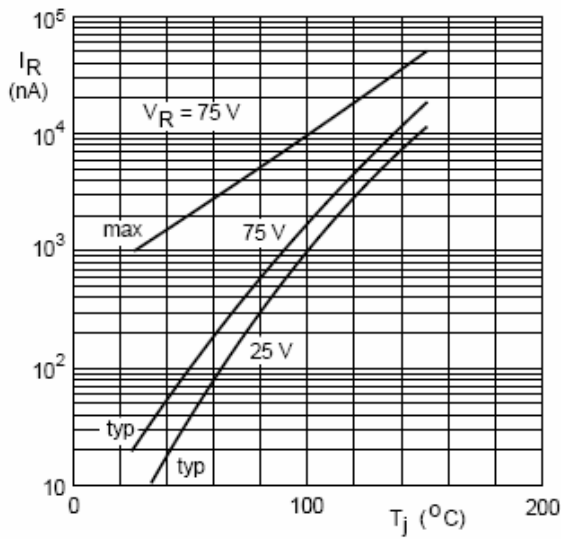


Fig.5 Reverse current as a function of junction temperature.

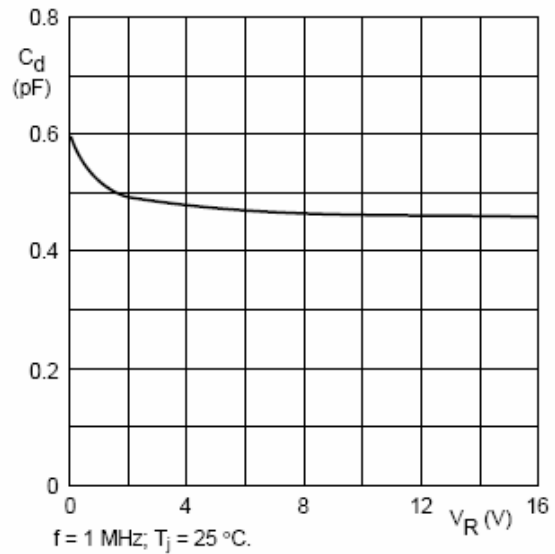


Fig.6 Diode capacitance as a function of reverse voltage; typical values.

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