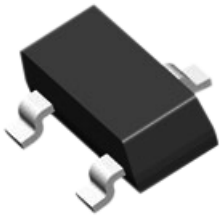
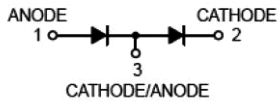
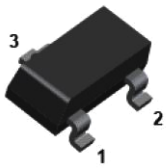
Dual Series Switching Diode



Features:

- Fast Switching Speed :6ns (Max.)
- High Conductance
- Connected In Series
- Surface Mount Package Ideally Suited for Automatic Insertion





SOT-23

Applications:

Small signal switching

Max. Rating @ T_A = 25°C unless otherwise specified

Parameter		Symbol	Limits	Unit
Repetitive peak reverse voltage		V_{RRM}	85	V
Continuous reverse voltage		V_R	75	V
Peak forward surge current	@t = 1μs @t = 1ms @t = 1s	I_{FSM}	4 1 0.5	A
Forward continuous current (Max.)	Single diode loaded Both 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	°C/W
Junction and storage temperature		T_j, T_{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	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°C V_R = 75V, T_j = 150°C	-	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 1,000 1,250	V
Diode capacitance	C_D	Vr =0V, f=1MHz	-	1.5	pF
Reverse recovery time	t_{rr}	I_F = I_R = 10mA, Irr = 0.1 × I_R, R_L = 100Ω	-	4	ns

Typical Characteristics @ T_A = 25°C unless otherwise specified

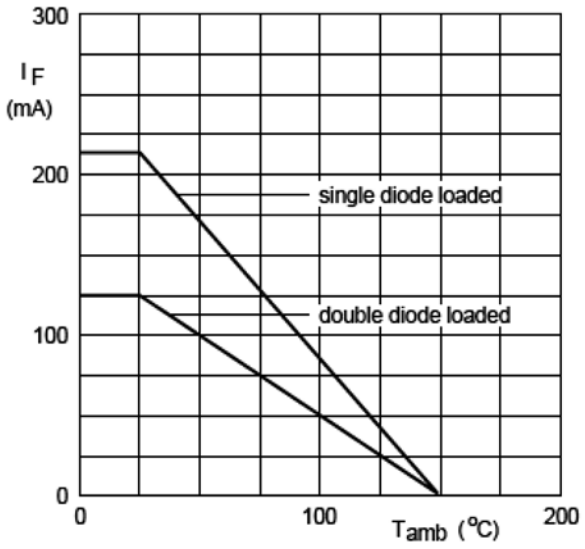
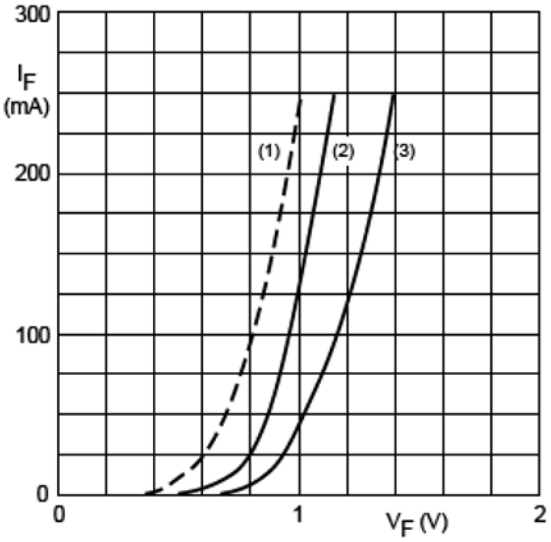


Fig.2 Maximum permissible continuous forward current as a function of ambient temperature.



(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.

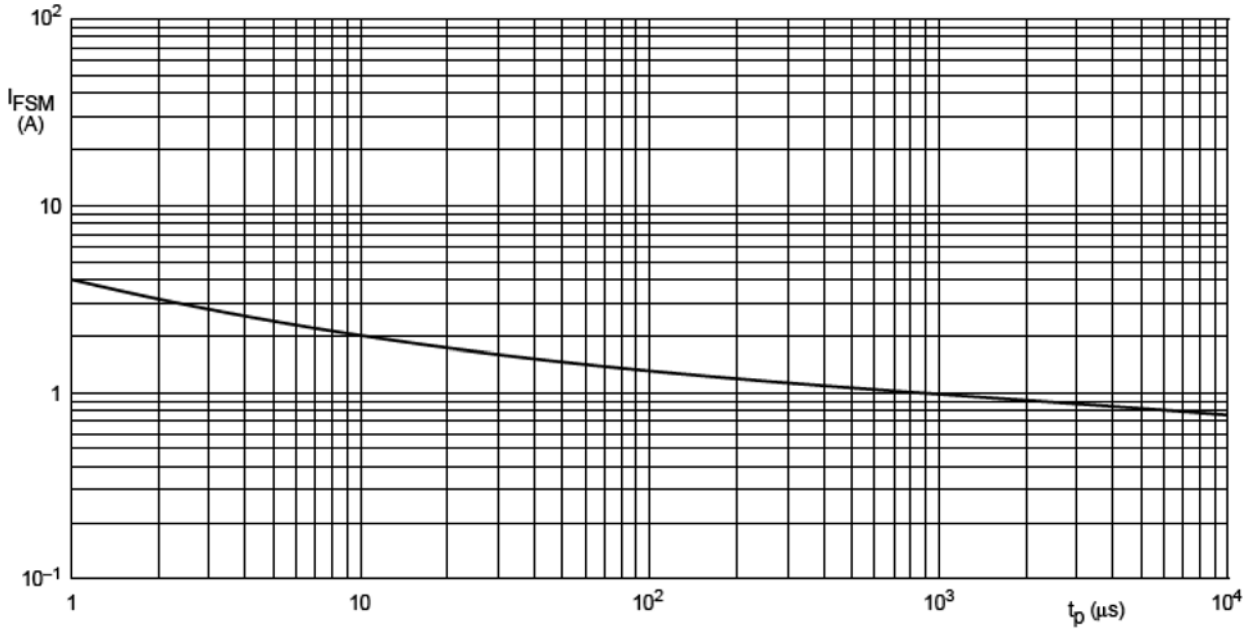


Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

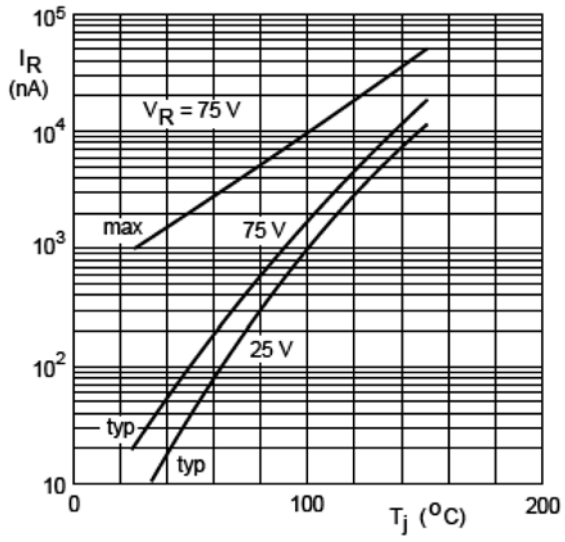


Fig.5 Reverse current as a function of junction temperature.

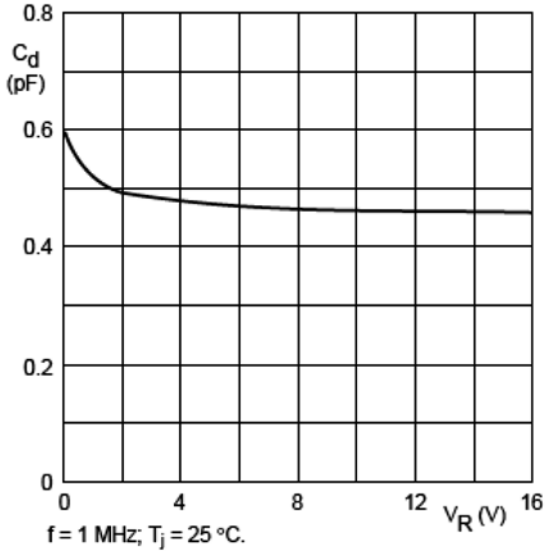
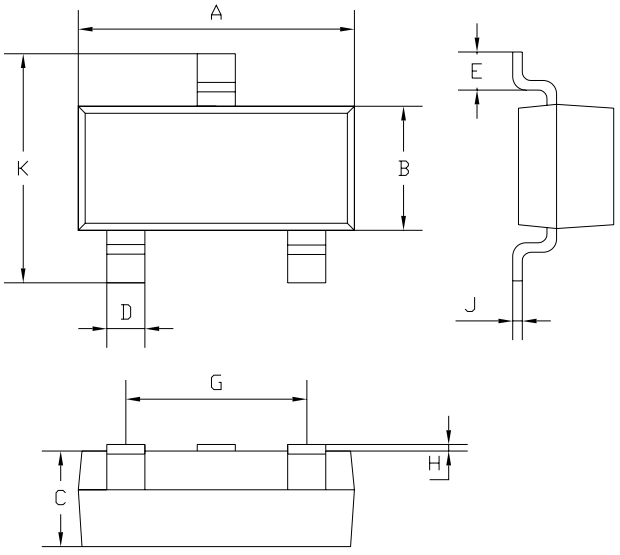


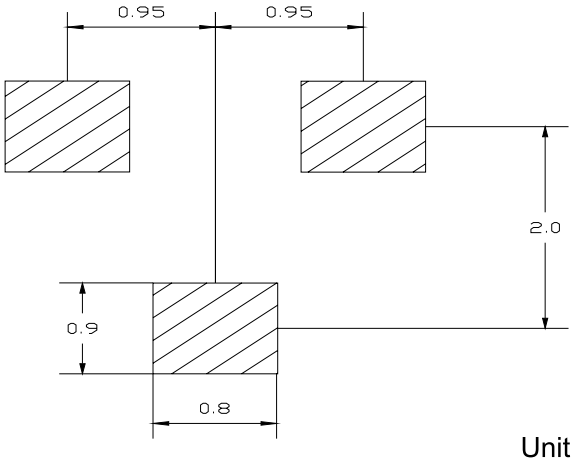
Fig.6 Diode capacitance as a function of reverse voltage; typical values.

Plastic surface mounted package



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

Soldering Footprint



Unit : mm

Package Information

Device	Package	Shipping
BAV99-7-F	SOT-23	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Dual series switching diode	BAV99-7-F