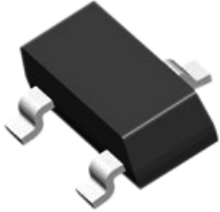
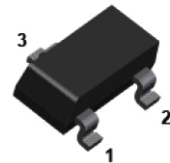
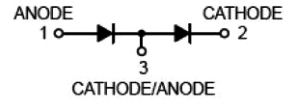


Dual Series Switching Diode



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 @ TA = 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	I_{FSM}	4 1 0.5	A
		@t = 1µs @t = 1ms @t = 1s	
Forward continuous current (Max.)	I_F	215 125	mA
		Single diode loaded Both diodes loaded	
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 @ TA = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 2.5\mu A$	75	-	V
Reverse voltage leakage current	I_R	$V_R = 25V$ $V_R = 75V$ $V_R = 25V, T_j = 150^\circ C$ $V_R = 75V, T_j = 150^\circ C$	-	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	$V_r = 0V, f = 1MHz$	-	1.5	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10mA,$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	4	ns

Dual Series Switching Diode

Typical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

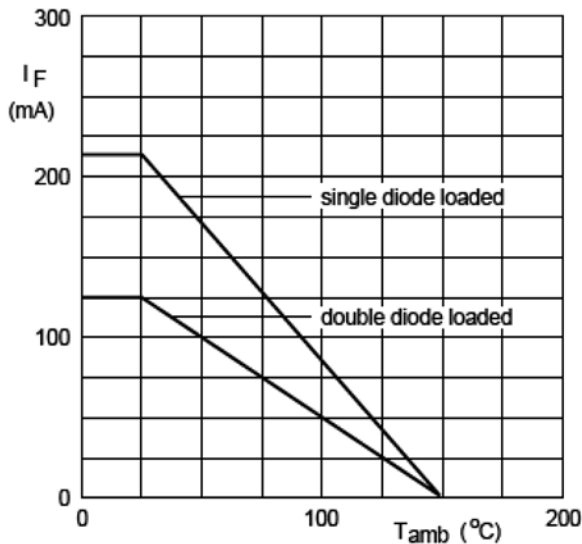
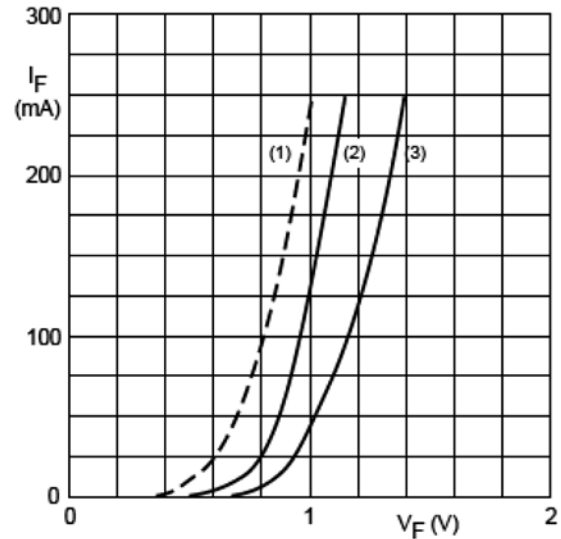


Fig.2 Maximum permissible continuous forward current as a function of ambient temperature.



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

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

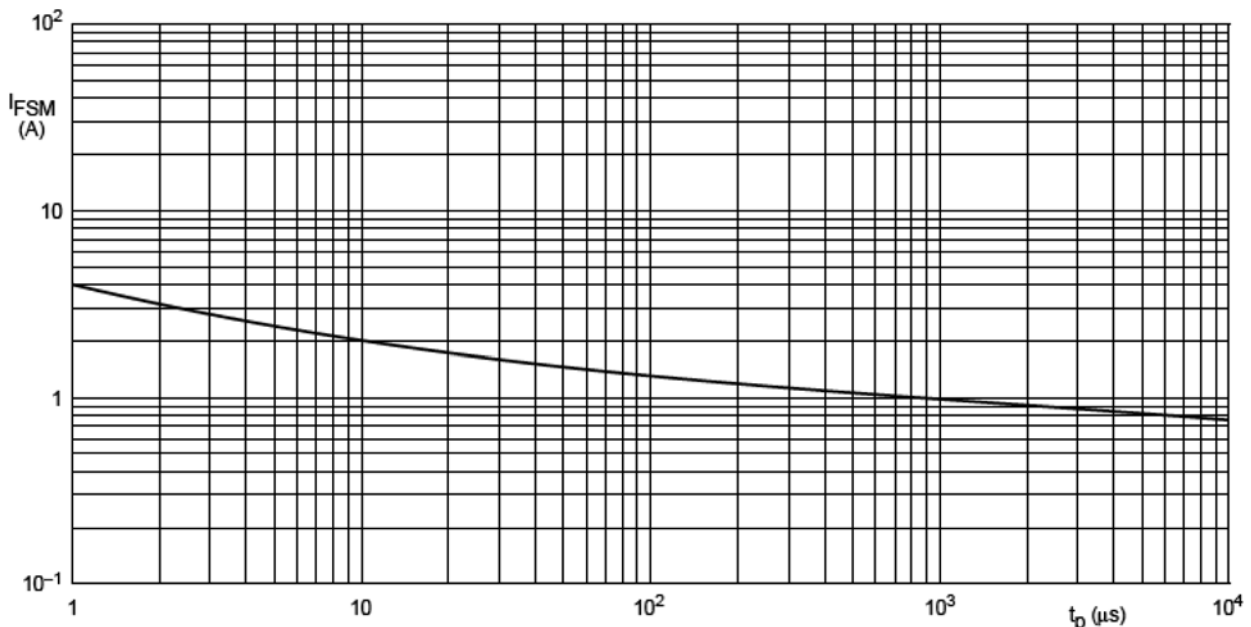


Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

Dual Series Switching Diode

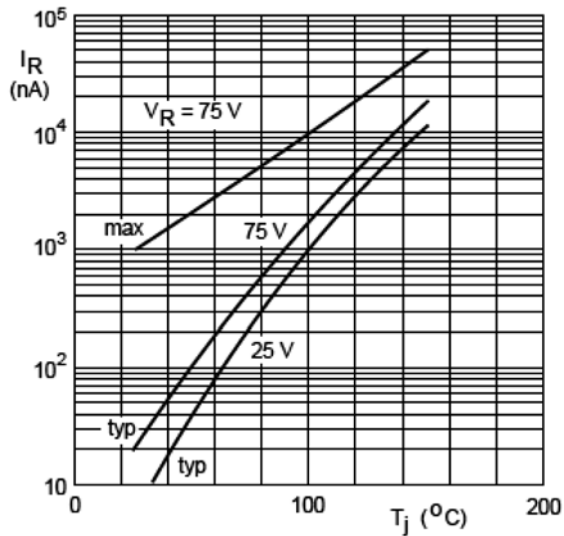


Fig.5 Reverse current as a function of junction temperature.

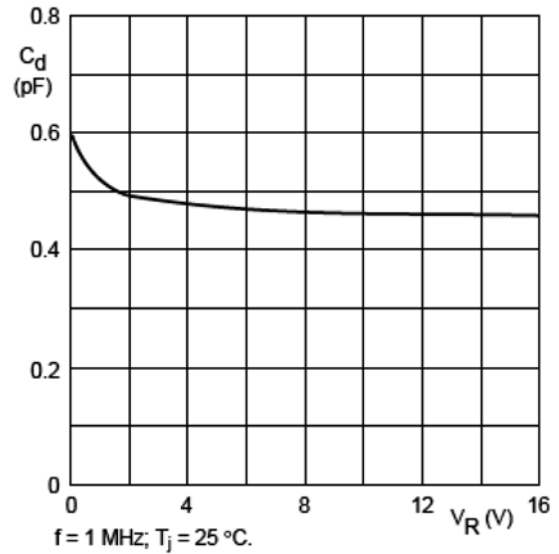
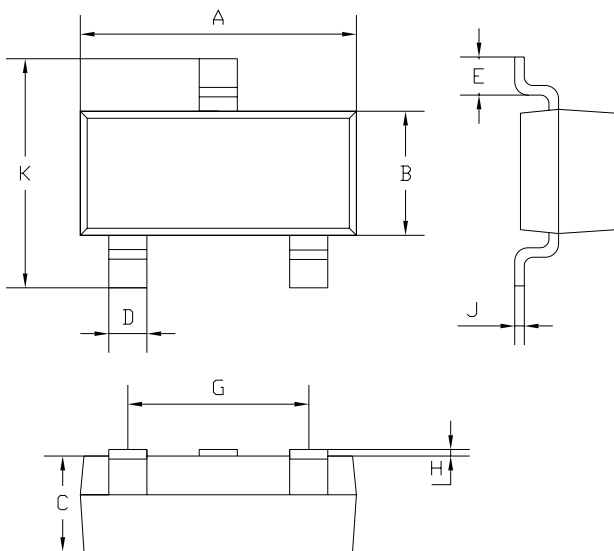


Fig.6 Diode capacitance as a function of reverse voltage; typical values.

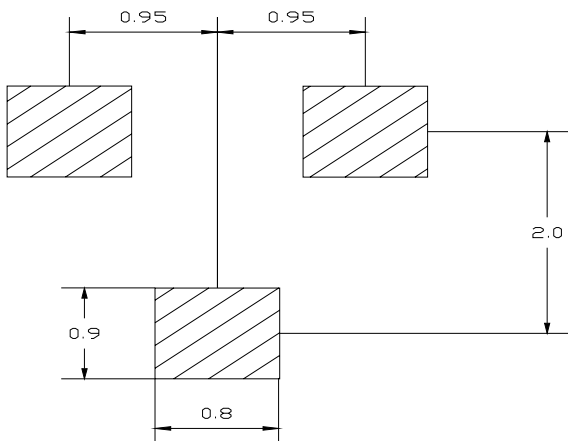
Plastic surface mounted package



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		

Dual Series Switching Diode

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

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