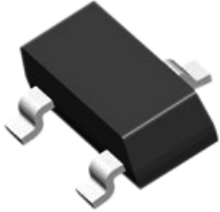
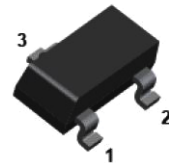
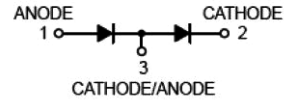


# Dual Series Switching Diode



## 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

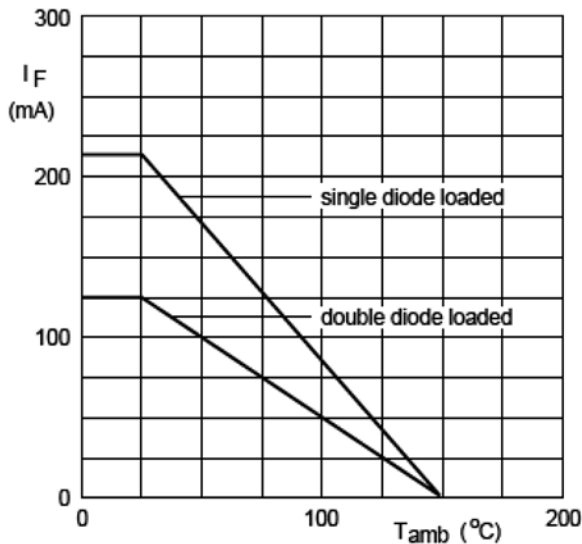
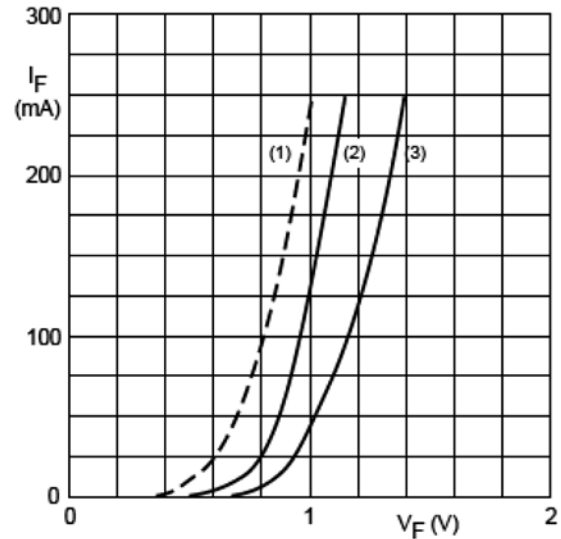


Fig.2 Maximum permissible continuous forward current as a function of ambient temperature.



- (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.

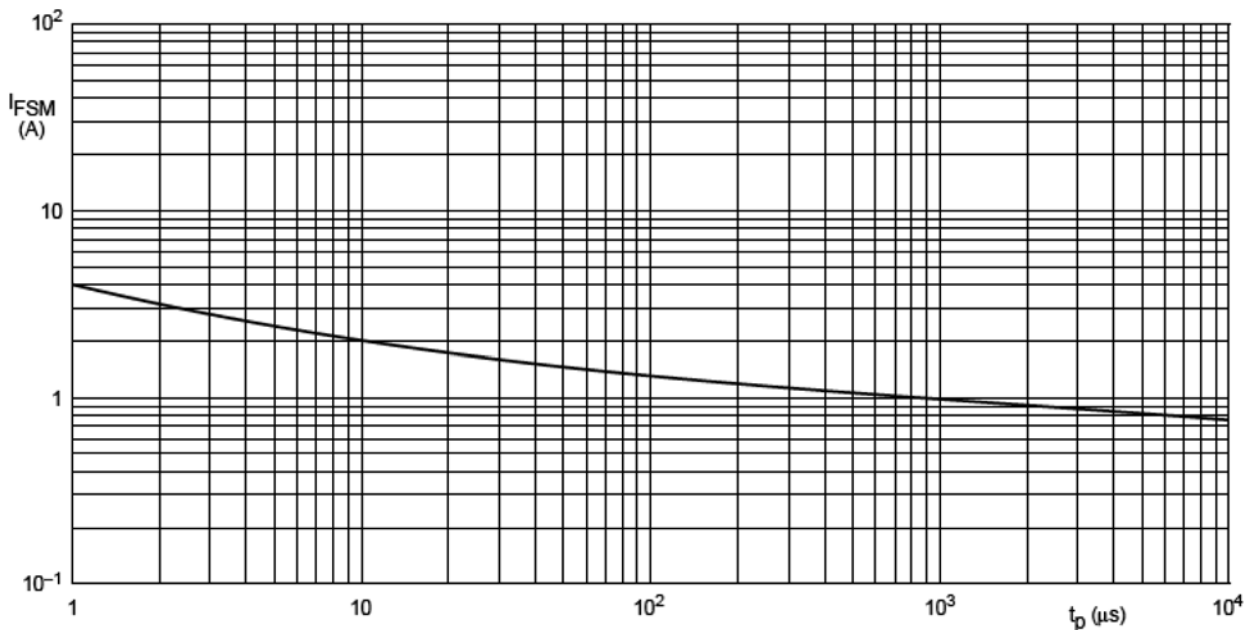


Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

# Dual Series Switching Diode

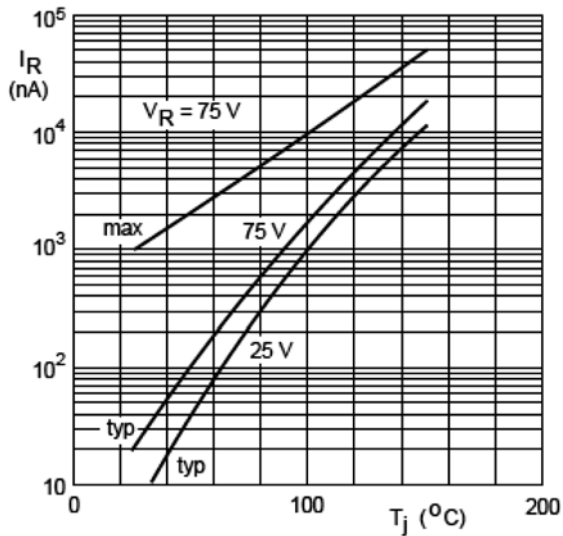


Fig.5 Reverse current as a function of junction temperature.

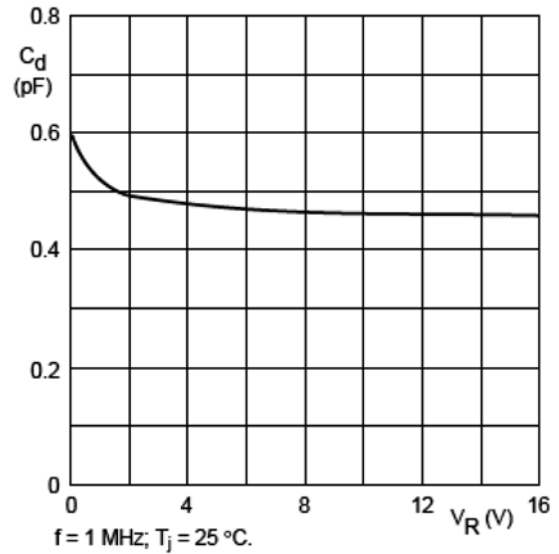
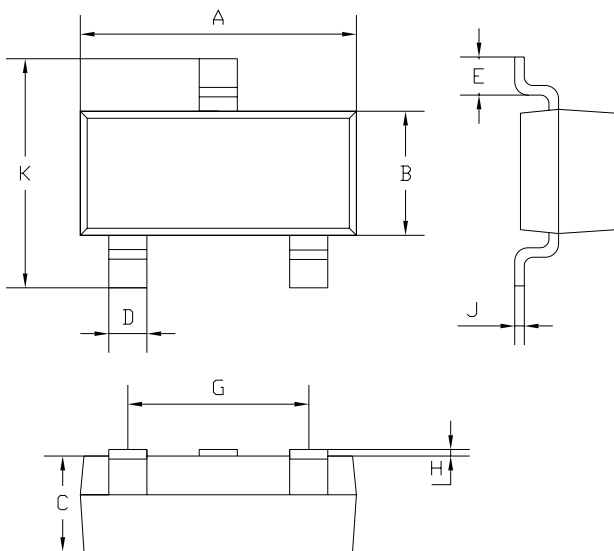


Fig.6 Diode capacitance as a function of reverse voltage; typical values.

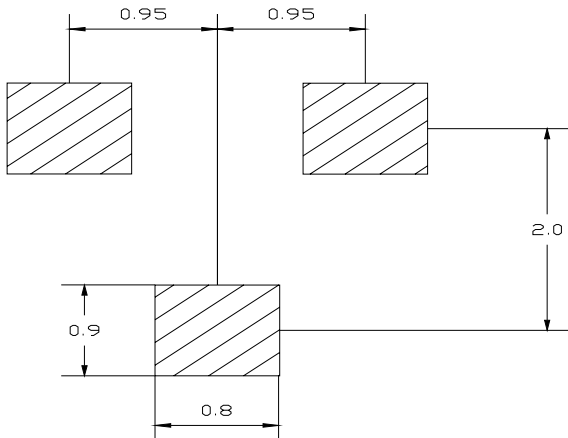
## Plastic surface mounted package



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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