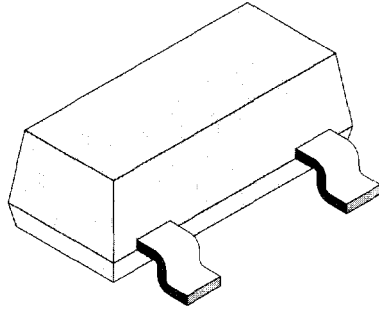


## Surface Mount Switching Diode

### Features

- Fast switching speed
- Surface mount package
- Well suited for automated assembly process



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### Absolute Maximum Ratings

 $T_j = 25^\circ\text{C}$ 

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage =Working peak reverse voltage =DC Blocking voltage			$V_{RRM}$ $=V_{RWM}$ $=V_R$	70	V
Peak forward surge current	$t=1\mu\text{s}$		$I_{FSM}$	2	A
	$t=1\text{ms}$		$I_{FSM}$	1	A
	$t=1\text{s}$		$I_{FSM}$	0.5	A
Average forward current			$I_{FAV}$	250	mA
Power dissipation	on fiberglass substrate 30mmx10mmx1.6mm		$P_{tot}$	350	mW
Junction and storage temperature range			$T_j=T_{stg}$	-55...+150	$^\circ\text{C}$

### Maximum Thermal Resistance

 $T_j = 25^\circ\text{C}$ 

Parameter	Test Conditions	Symbol	Value	Unit
Junction to ambient	on fiberglass substrate 30mmx10mmx1.6mm	$R_{thJA}$	357	K/W



## Electrical Characteristics

$T_j = 25^\circ\text{C}$

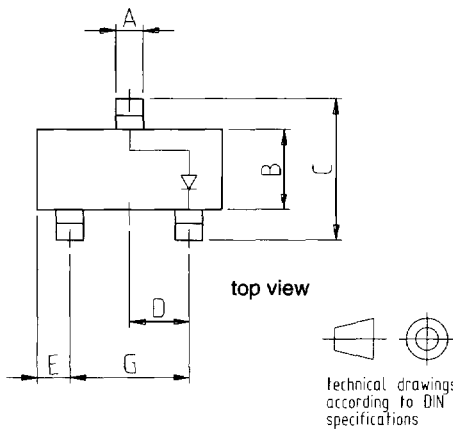
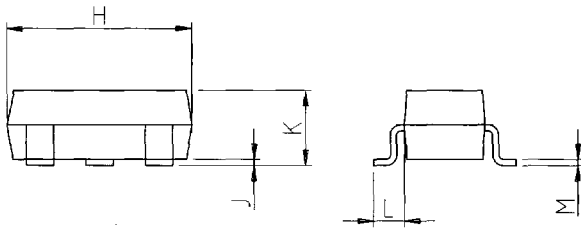
Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=1\text{mA}$		$V_F$			0.715	V
	$I_F=10\text{mA}$		$V_F$			0.855	V
	$I_F=50\text{mA}$		$V_F$			1.0	V
	$I_F=150\text{mA}$		$V_F$			1.25	V
Reverse current	$V_R=70\text{V}$		$I_R$			2.5	$\mu\text{A}$
	$V_R=70\text{V}, T_j=150^\circ\text{C}$		$I_R$			100	$\mu\text{A}$
	$V_R=25\text{V}, T_j=150^\circ\text{C}$		$I_R$			30	$\mu\text{A}$
Diode capacitance	$V_F=V_R=0, f=1\text{MHz}$		$C_D$			1.5	pF
Reverse recovery time	$I_F=I_R=10\text{mA}$ to $I_R=1\text{mA}$ , $R_L=100\Omega, V_R=6\text{V}$		$t_{rr}$			6	ns

# BAL99

## Vishay Telefunken



### Dimensions in mm



SOT-23		
Dim.	Min	Max
A	0.37	0.50
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.79	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.130
All Dimensions in mm		

14374

Case: SOT-23, plastic  
Terminals: Solderable per MIL-STD-202, Method 208  
Pin connections: see diagram  
Approx. weight: 0.008 grams  
Marking: KJF