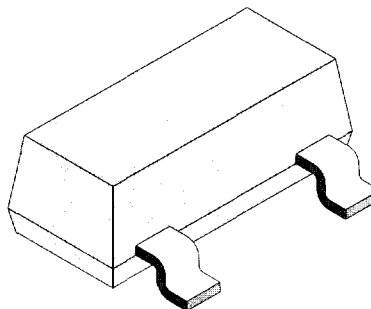


Surface Mount Schottky Barrier Diodes

Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection



94 8550

Absolute Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Repetitive peak reverse voltage =Working peak reverse voltage =DC Blocking voltage		V_{RRM} $=V_{RWM}$ $=V_R$	30	V
Peak forward surge current	$t_p < 1\text{ s}$, on fiberglass substrate	I_{FSM}	600	mA
Repetitive peak forward current	on fiberglass substrate	I_{FRM}	300	mA
Average forward current		I_{FAV}	100	mA
Forward current	on fiberglass substrate	I_F	200	mA
Power dissipation	on fiberglass substrate	P_d	200	mW
Junction and storage temperature range		$T_j = T_{stg}$	-55...+125	$^\circ\text{C}$

Maximum Thermal Resistance

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

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient		R_{thJA}	500	K/W

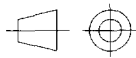
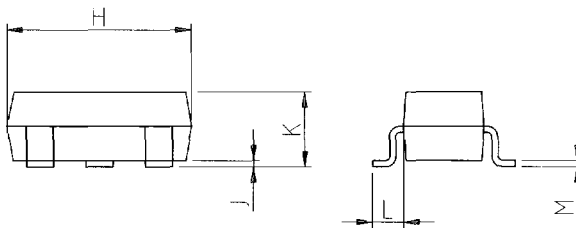


Electrical Characteristics

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=0.1\text{mA}$, $t_p<300\mu\text{s}$, duty cycle $<2\%$	V_F			240	mV
	$I_F=1\text{mA}$, $t_p<300\mu\text{s}$, duty cycle $<2\%$	V_F			320	mV
	$I_F=10\text{mA}$, $t_p<300\mu\text{s}$, duty cycle $<2\%$	V_F			400	mV
	$I_F=30\text{mA}$, $t_p<300\mu\text{s}$, duty cycle $<2\%$	V_F			500	mV
	$I_F=100\text{mA}$, $t_p<300\mu\text{s}$, duty cycle $<2\%$	V_F			1000	mV
Reverse current	$V_R=25\text{V}$, $t_p<300\mu\text{s}$, duty cycle $<2\%$	I_R			2	μA
Breakdown voltage	$I_R=100\mu\text{A}$	$V_{(BR)}$	30			V
Diode capacitance	$V_R=1\text{V}$, $f=1\text{MHz}$	C_D			10	pF
Reverse recovery time	$I_F=10\text{mA}$ through $I_R=10\text{mA}$ to $I_R=1\text{mA}$, $R_L=100\Omega$	t_{rr}			5	ns

Dimensions in mm

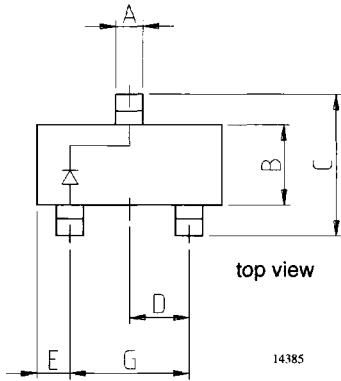


technical drawings
according to DIN
specifications

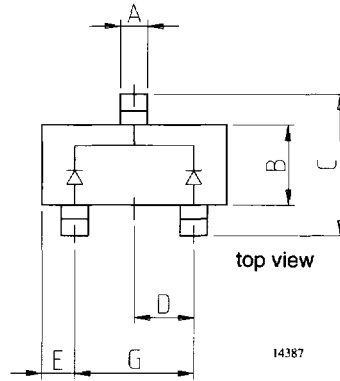
14384

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		

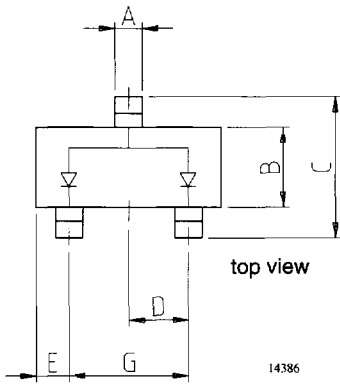
Case: SOT23, molded plastic
Terminals: Solderable per MIL-STD-202, Method 208
Polarity: see diagrams below
Mounting position: any
Approx. weight: 0.008 grams



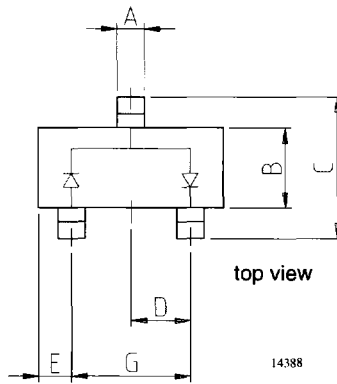
BAT54



BAT54C, common cathode



BAT54A, common anode



BAT54S, connected in series