

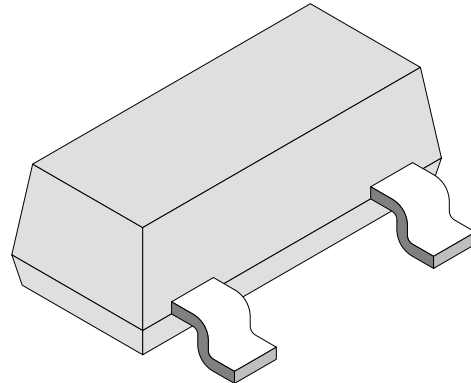
Silicon Epitaxial Planar Dual Capacitance Diode

Features

- Common cathode

Applications

Tuning of separate resonant circuits, push-pull circuits in FM range, especially for car radios



94 8550

Absolute Maximum Ratings

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

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage			V_{RRM}	20	V
Reverse voltage			V_R	18	V
Forward current			I_F	50	mA
Junction temperature			T_j	100	$^\circ\text{C}$
Storage temperature range			T_{stg}	-55...+150	$^\circ\text{C}$

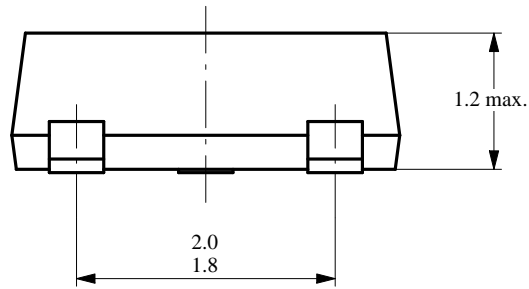
Characteristics

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

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Reverse current	$V_R=16\text{V}$		I_R			20	nA
	$V_R=16\text{V}, T_j=60^\circ\text{C}$		I_R			0.2	μA
Diode capacitance ¹⁾	$V_R=2\text{V}, f=1\text{MHz}$		C_D	42		47.5	pF
	$V_R=2\text{V}, f=1\text{MHz}$	Group 0	C_D	42		43.5	pF
	$V_R=2\text{V}, f=1\text{MHz}$	Group 1	C_D	43		44.5	pF
	$V_R=2\text{V}, f=1\text{MHz}$	Group 2	C_D	44		45.5	pF
	$V_R=2\text{V}, f=1\text{MHz}$	Group 3	C_D	45		46.5	pF
	$V_R=2\text{V}, f=1\text{MHz}$	Group 4	C_D	46		47.5	pF
Capacitance ratio	$V_R=2\text{V}, 8\text{V}, f=100\text{MHz}$		C_{D2}/C_{D8}	1.65		1.75	
Series resistance	$C_D=38\text{pF}, f=100\text{MHz}$		r_s		0.3	0.4	Ω
Figure of merit	$C_D=38\text{pF}, f=100\text{MHz}$		Q	100	140		

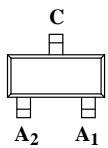
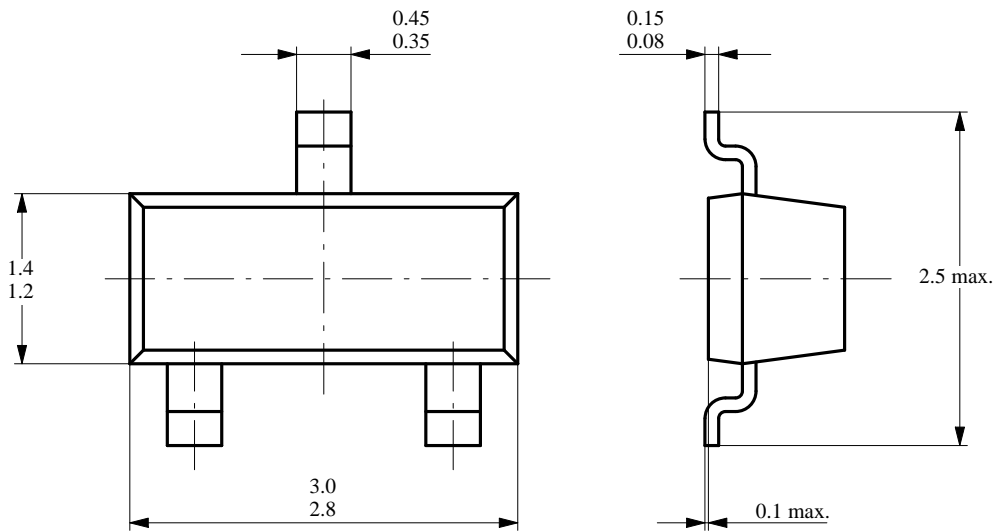
¹⁾ A packing unit (reel) contains diodes from one capacitance group only. Delivery of single capacitance groups available only on request.

Dimensions in mm




 technical drawings
 according to DIN
 specifications

95 9682



Standard Plastic Case
 23 A 3 DIN 41869/8
 JEDEC TO 236
 SOT 23

94 9540

OZONE DEPLETING SUBSTANCES POLICY STATEMENT

It is the policy of **TEMIC TELEFUNKEN microelectronic GmbH** to

1. Meet all present and future national and international statutory requirements and
2. Regularly and continuously improve the performance of our products, processes, distribution and operating systems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

Of particular concern is the control or elimination of releases into the atmosphere of those substances which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) will soon severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

TEMIC TELEFUNKEN microelectronic GmbH semiconductor division has been able to use its policy of continuous improvements to eliminate the use of any ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively
2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA and
3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

TEMIC can certify that our semiconductors are not manufactured with and do not contain ozone depleting substances.

We reserve the right to make changes to improve technical design without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. Should the buyer use TEMIC products for any unintended or unauthorized application, the buyer shall indemnify TEMIC against all claims, costs, damages, and expenses, arising out of, directly or indirectly, any claim of personal damage, injury or death associated with such unintended or unauthorized use.

TEMIC TELEFUNKEN microelectronic GmbH, P.O.B. 3535, D-74025 Heilbronn, Germany
Telephone: 49 (0)7131 67 2831, Fax Number: 49 (0)7131 67 2423