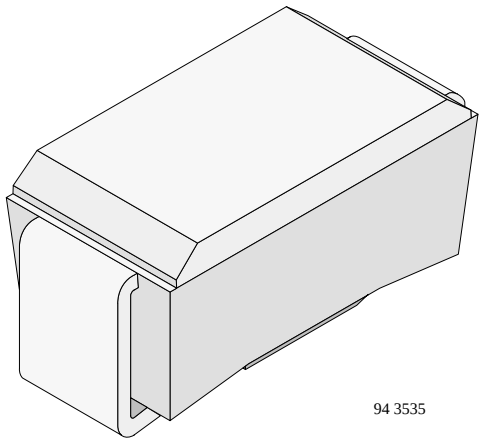
Schottky Barrier Rectifier

Features

- High efficiency
- Low power losses
- Very low switching losses
- Low reverse current
- High surge capability



Applications

Polarity protection
Low voltage, high frequency rectifiers

Absolute Maximum Ratings

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage		BYS10–25	V_{RRM}	25	V
		BYS10–35	V_{RRM}	35	V
		BYS10–45	V_{RRM}	45	V
Reverse voltage		BYS10–25	V_R	25	V
		BYS10–35	V_R	35	V
		BYS10–45	V_R	45	V
Peak forward surge current	t_p=10ms, half sinewave		I_{FSM}	30	A
Average forward current			I_{FAV}	1.5	A
Junction temperature			T_j	150	˚C
Storage temperature range			T_{stg}	–55...+150	˚C

Maximum Thermal Resistance

T_j = 25°C

Parameter	Test Conditions	Symbol	Value	Unit
Junction lead	T_L=constant	R_{thJL}	25	K/W
Junction ambient	mounted on epoxy–glass hard issue, Fig. 1a	R_{thJA}	150	K/W
	mounted on epoxy–glass hard issue, Fig. 1b	R_{thJA}	125	K/W
	mounted on Al–oxid–ceramic (Al_2O_3), Fig. 1b	R_{thJA}	100	K/W

Characteristics

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=1A		V_F			500	mV
Reverse current	V_R=V_{RRM}		I_R			500	µA
	V_R=V_{RRM}, T_j=100˚C		I_R			10	mA

Typical Characteristics (T_j = 25°C unless otherwise specified)

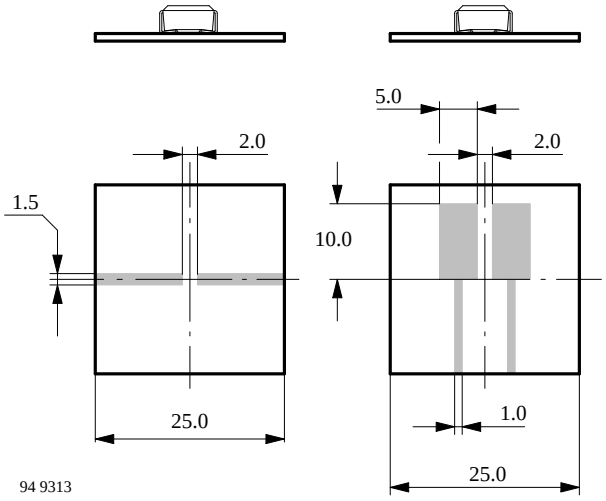


Figure 1 : Boards for R_{thJA} definition (copper overlay 35µ)

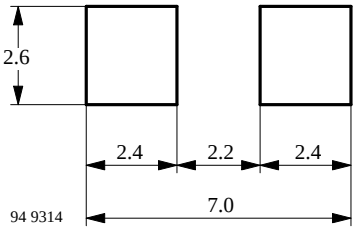


Figure 2 : Recommended foot pads

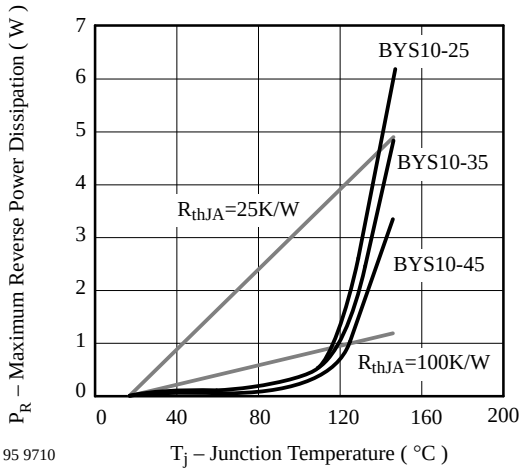


Figure 3 : Maximum Reverse Power Dissipation vs. Junction Temperature

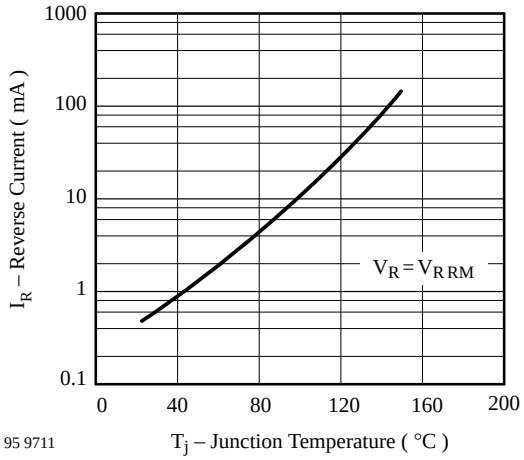


Figure 4 : Reverse Current vs. Junction Temperature

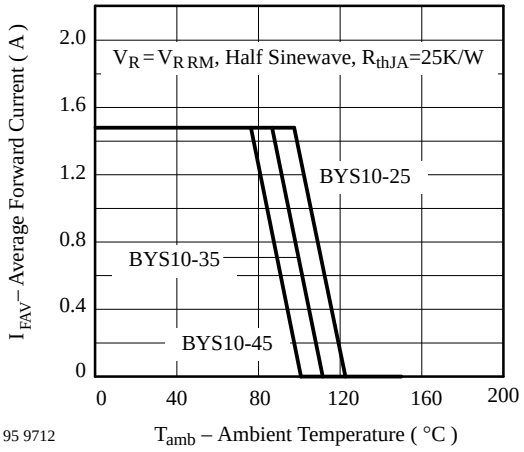


Figure 5 : Average Forward Current vs. Ambient Temperature

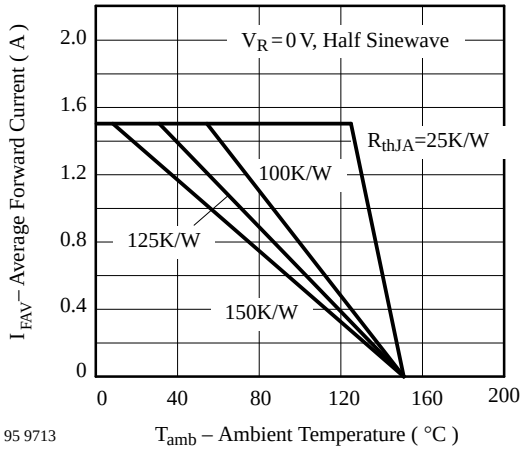


Figure 6 : Average Forward Current vs. Ambient Temperature

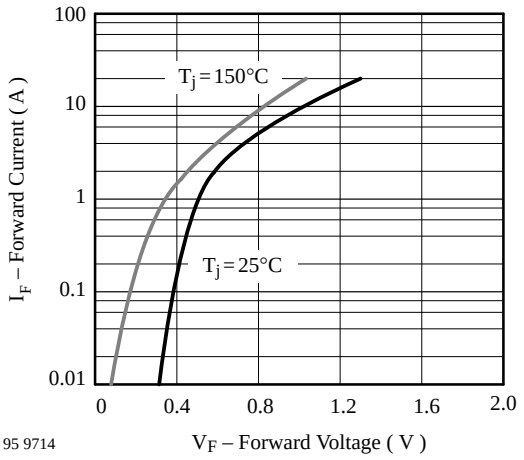
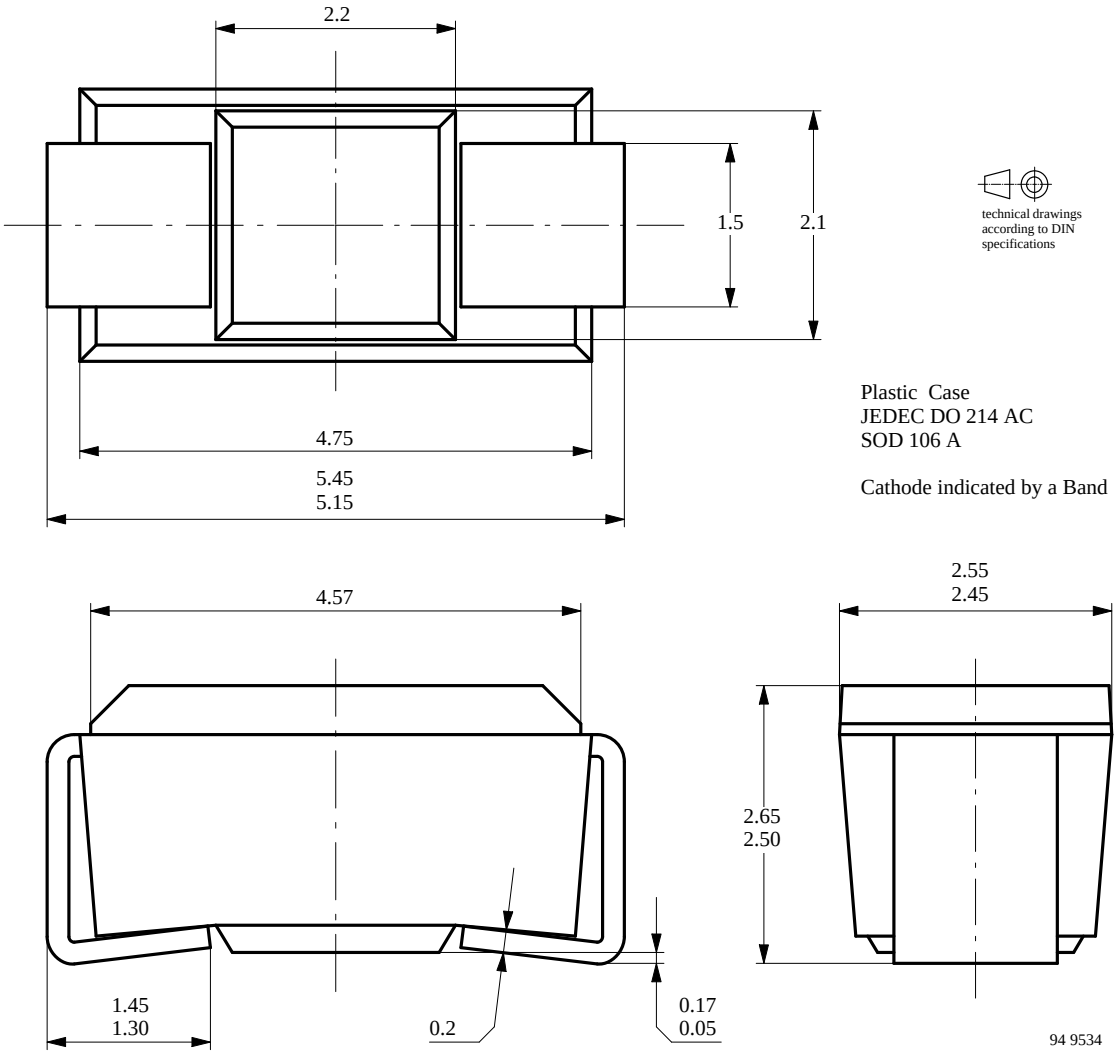


Figure 7 : Forward Current vs. Forward Voltage

Dimensions in mm



technical drawings
according to DIN
specifications

Plastic Case
JEDEC DO 214 AC
SOD 106 A

Cathode indicated by a Band

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.

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