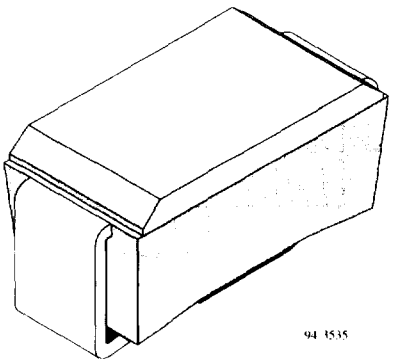
Schottky Barrier Rectifier

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)

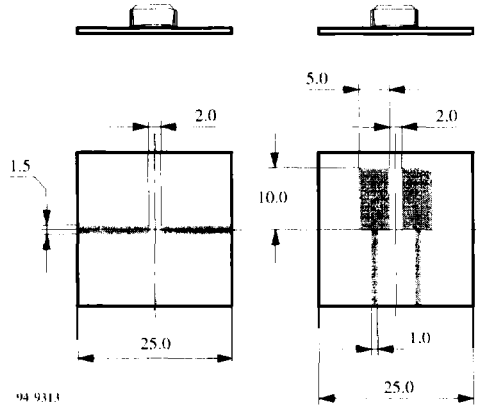


Figure 1 : Boards for R_{thJA} definition (copper overlay 35µ)

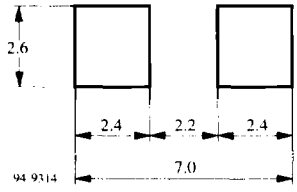


Figure 2 : Recommended foot pads

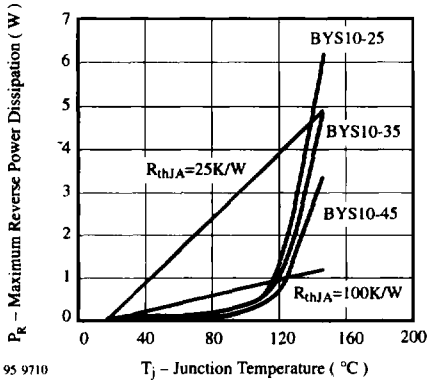


Figure 3 : Maximum Reverse Power Dissipation vs. Junction Temperature

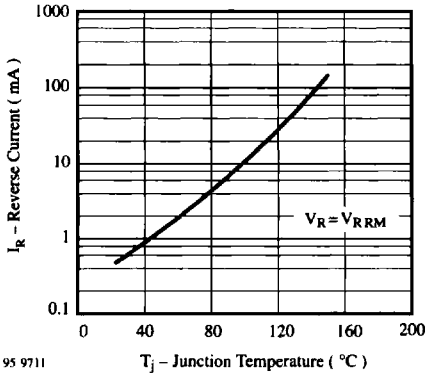


Figure 4 : Reverse Current vs. Junction Temperature

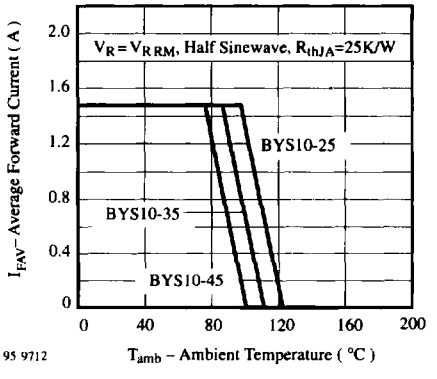


Figure 5 : Average Forward Current vs. Ambient Temperature

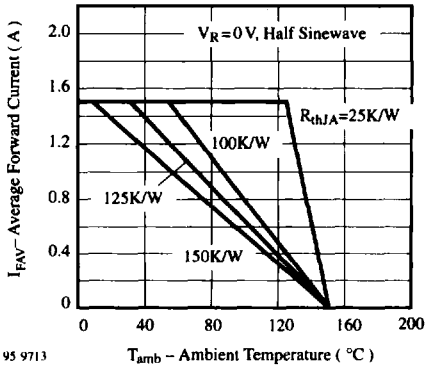


Figure 6 : Average Forward Current vs. Ambient Temperature

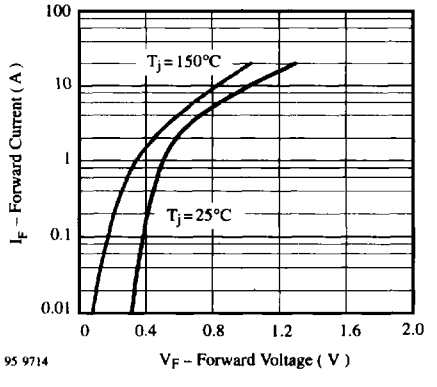
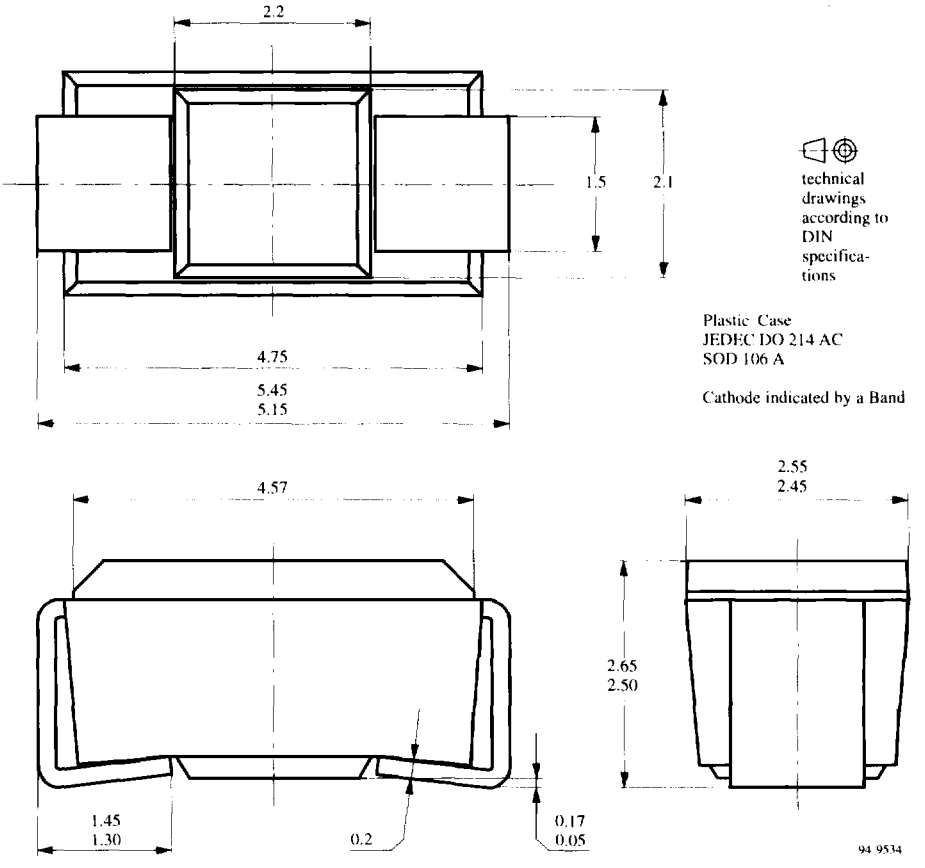


Figure 7 : Forward Current vs. Forward Voltage

Dimensions in mm



technical drawings according to DIN specifications

Plastic Case
JEDEC DO 214 AC
SOD 106 A

Cathode indicated by a Band