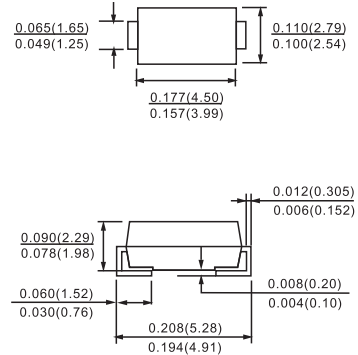


FEATURES

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

DO-214AC(SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

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

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage =Repetitive peak reverse voltage		BYS10-25	V_R = V_{RRM}	25	V
		BYS10-35		35	V
		BYS10-45		45	V
Peak forward surge current	$t_p=10\text{ms}$, half sinewave		I_{FSM}	30	A
Average forward current			I_{FAV}	1.5	A
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 lead	$T_L=\text{constant}$	R_{thJL}	25	K/W
Junction ambient	mounted on epoxy-glass hard tissue	R_{thJA}	150	K/W
	mounted on epoxy-glass hard tissue, 50mm ² 35 μm Cu	R_{thJA}	125	K/W
	mounted on Al-oxid-ceramic (Al ₂ O ₃), 50mm ² 35 μm Cu	R_{thJA}	100	K/W

Electrical Characteristics

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

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



RATINGS AND CHARACTERISTIC CURVES

BYS10-25 THRU BYS10-45

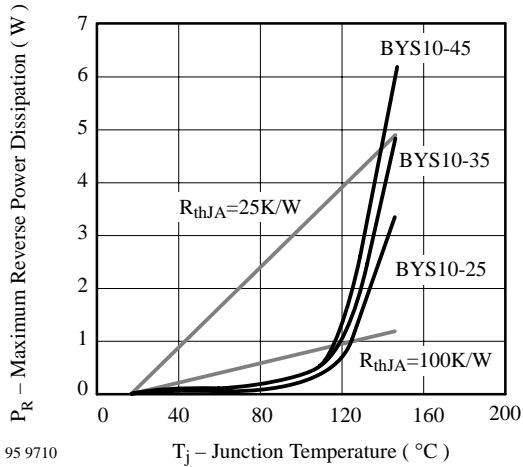


Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

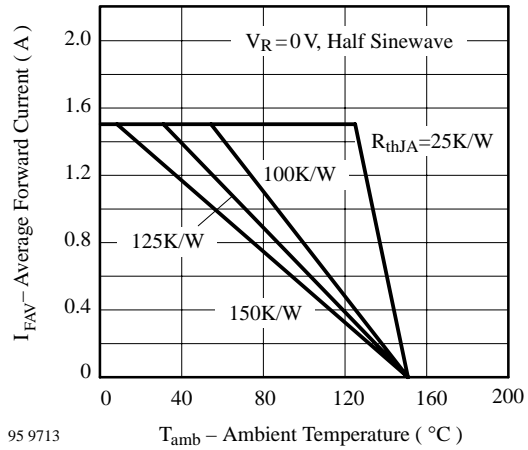


Figure 4. Max. Average Forward Current vs. Ambient Temperature

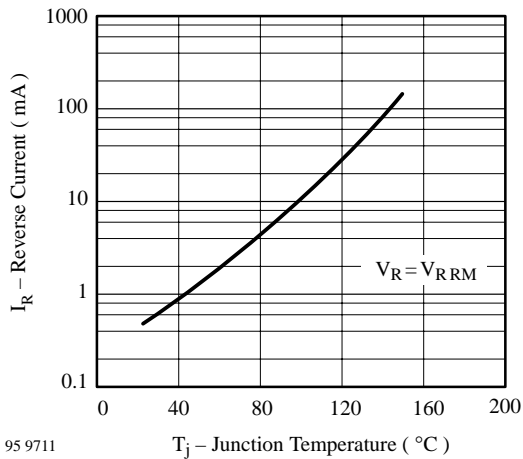


Figure 2. Max. Reverse Current vs. Junction Temperature

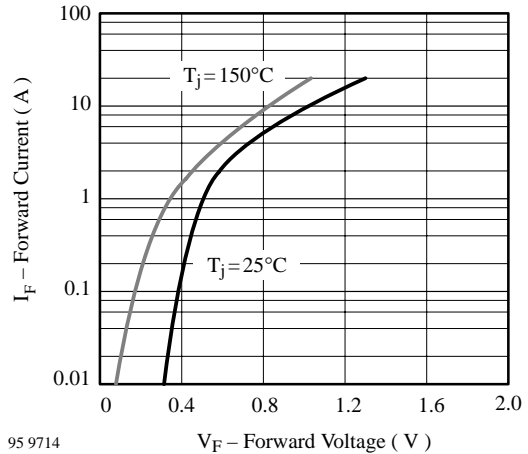


Figure 5. Max. Forward Current vs. Forward Voltage

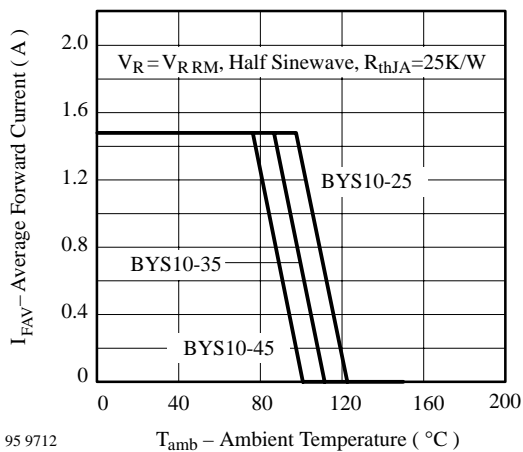


Figure 3. Max. Average Forward Current vs. Ambient Temperature