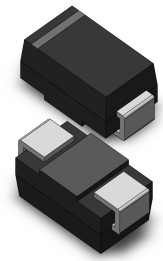
BYS10-25 - BYS10-45

SURFACE MOUNT SCHOTTKY BARRIER DIODES

VOLTAGE RANGE: 25 - 45V
CURRENT: 1.5 A



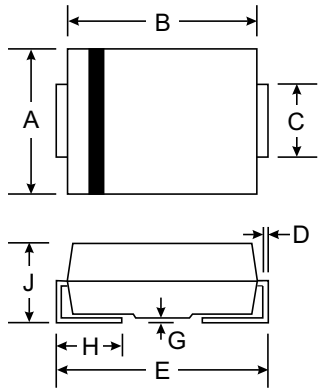
Features

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

Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)

RoHS COMPLIANT



SMA(DO-214AC)		
Dim	**Min**	**Max**
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

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=10ms, 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	°C

Maximum Thermal Resistance @ T_A = 25°C unless otherwise specified

Parameter	Test Conditions	Symbol	Value	Unit
Junction lead	T_L=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 35µm Cu	R_{thJA}	125	K/W
	mounted on Al–oxid–ceramic (Al_2O_3), 50mm^2 35µm Cu	R_{thJA}	100	K/W

Electrical Characteristics @ T_A = 25°C unless otherwise specified

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

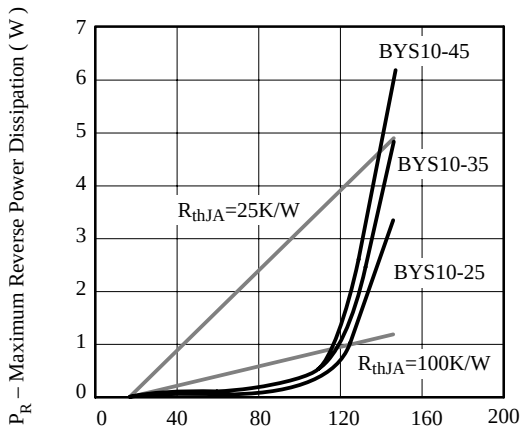


Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

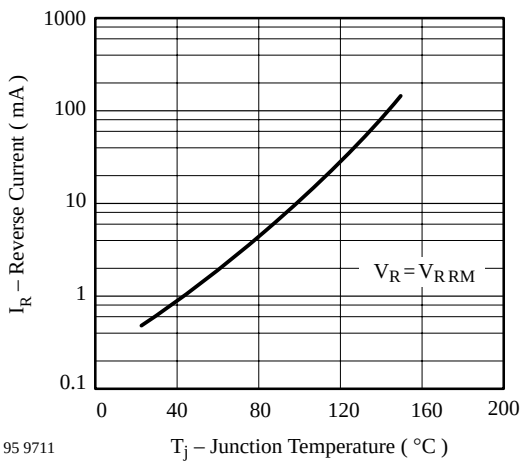


Figure 2. Max. Reverse Current vs. Junction Temperature

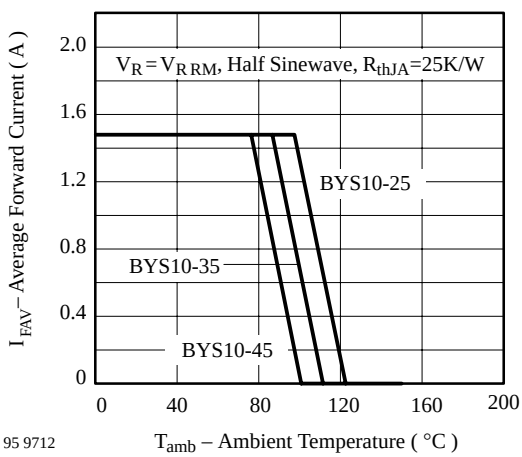


Figure 3. Max. Average Forward Current vs. Ambient Temperature

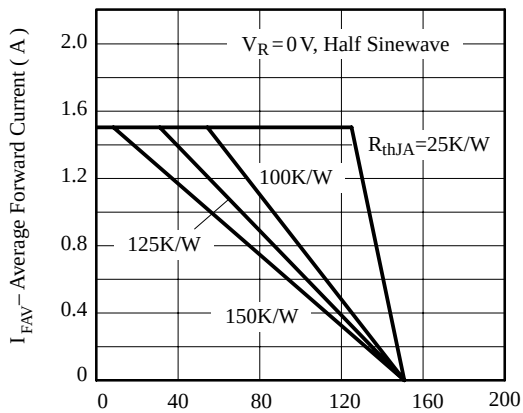


Figure 4. Max. Average Forward Current vs. Ambient Temperature

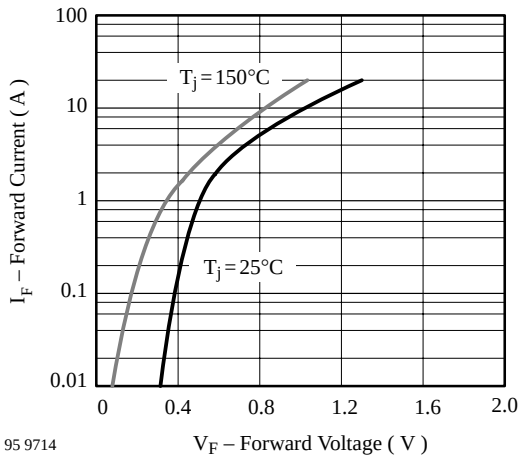


Figure 5. Max. Forward Current vs. Forward Voltage