

BYS10-25 ~ BY10-45

PRV : 25 - 45 Volts
I_o : 1.5 Amperes

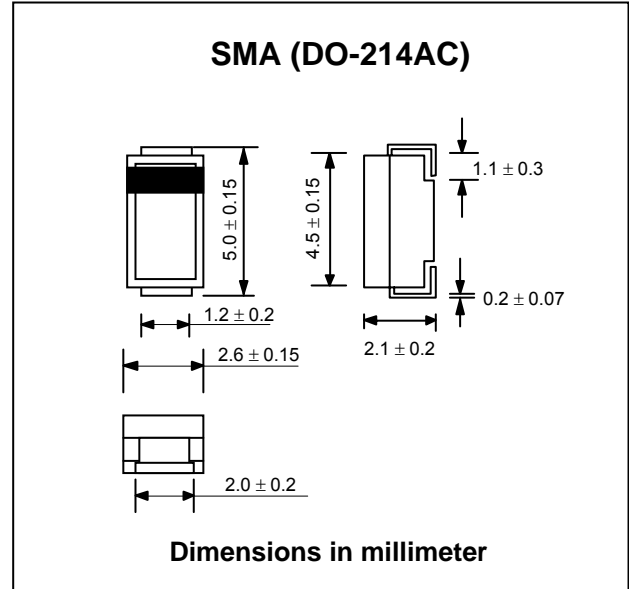
FEATURES :

- * Low profile package
- * Ideal for automated placement
- * Guarding for over voltage protection
- * Low power losses, high efficiency
- * Very low switching losses
- * High surge capability
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : SMA (DO-214AC) Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.067 gram

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)

RATING	SYMBOL	BYS10-25	BYS10-35	BYS10-45	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	25	35	45	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1.5			A
Maximum Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	40			A
Maximum Instantaneous Forward Voltage ⁽¹⁾ at I _F = 1 A	V _F	500			mV
Maximum DC Reverse Current ⁽¹⁾ at V _R = V _{RRM}	T _J = 25 °C I _R	500			μA
	T _J = 100 °C I _{R(H)}	10			mA
Maximum Thermal Resistance (Junction to Ambient)	R _{θJA}	150 ⁽²⁾			°C/W
		125 ⁽³⁾			
		100 ⁽⁴⁾			
Maximum Thermal Resistance (Junction to Lead)	R _{θJL}	25			°C/W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	- 65 to + 150			°C

Notes:

- (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 1%.
- (2) Mounted on epoxy-glass hard tissue
- (3) Mounted on epoxy-glass hard tissue, 50 mm² 35 μm Cu
- (4) Mounted on Al-oxide-ceramic (Al₂O₃), 50 mm² 35 μm Cu

RATING AND CHARACTERISTIC CURVES (BYS10-25 ~ BYS10-45)

FIG.1 - MAX. AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

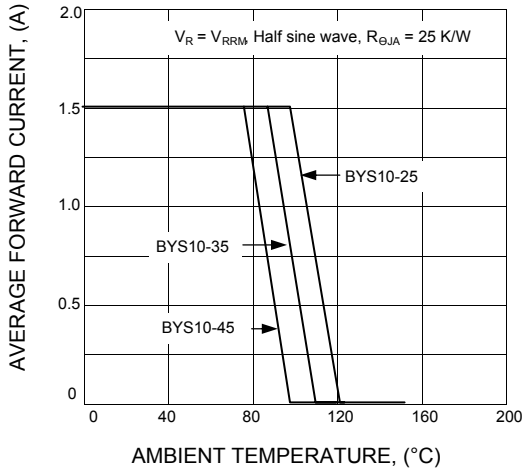


FIG.2 - MAX. REVERSE POWER DISSIPATION VS. JUNCTION TEMPERATURE

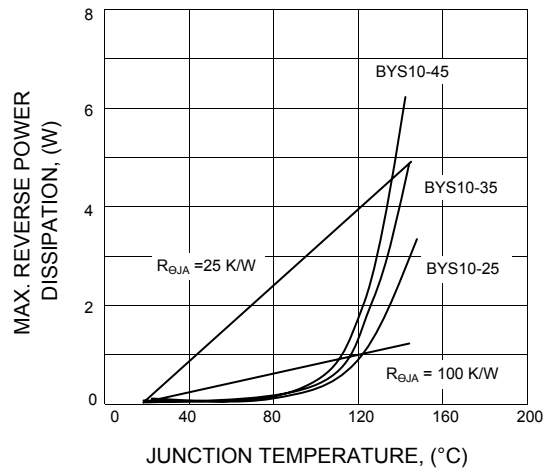


FIG.3 - MAX. FORWARD CURRENT VS. FORWARD VOLTAGE

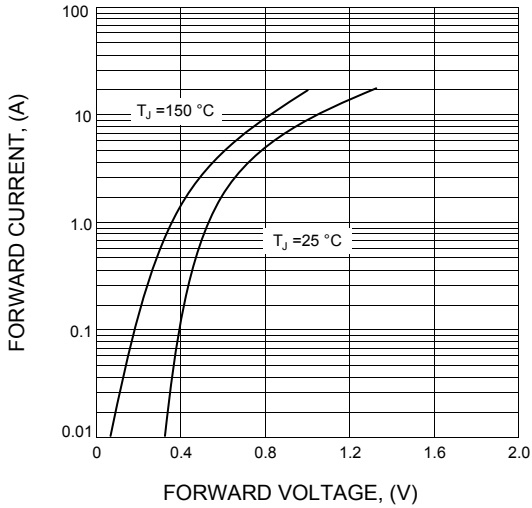


FIG.4 - MAX. REVERSE CURRENT VS. JUNCTION TEMPERATURE

