

3.0Amp Schottky Barrier Rectifiers

SB3100

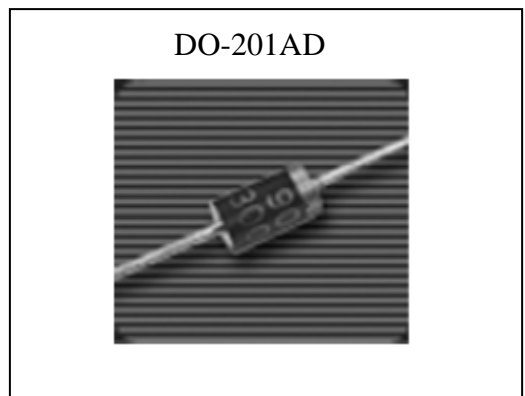
Features

- Metal-semiconductor junction with guard ring.
- Epitaxial construction
- Low forward voltage drop
- High current capability

Mechanical Data

- Case : Molded plastic DO-201AD
- Epoxy : UL94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-202 method 208 guaranteed
- Polarity: Color band denotes cathode end.
- Mounting Position : Any.
- Weight: 0.041 oz., 1.15 gram

Outline



Maximum Ratings and Electrical Characteristics

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%)

Parameter	Symbol	Limits	Units
Maximum repetitive peak reverse voltage	V _{RRM}	100	V
Maximum RMS voltage	V _{RMS}	70	V
Maximum DC blocking voltage	V _{DC}	100	V
Maximum forward voltage at I _F =3A	V _F	0.85	V
Maximum average forward rectified current @ 0.375"(9.5mm) lead length, T _L =100°C	I _{F(AV)}	3	A
Peak forward surge current @8.3ms single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	100	A
Maximum DC reverse current at rated DC blocking voltage	I _R	T _J =25°C	0.5
		T _J =100°C	20
Typical thermal resistance, junction to lead	R _{θJL}	25	°C/W
Typical junction capacitance @ f=1MHz and applied 4V DC reverse voltage	C _J	90	pF
Operating junction temperature range	T _J	-55 ~ +125	°C
Storage temperature range	T _{STG}	-55 ~ +150	°C

Characteristic Curves

Fig.1- Forward Current

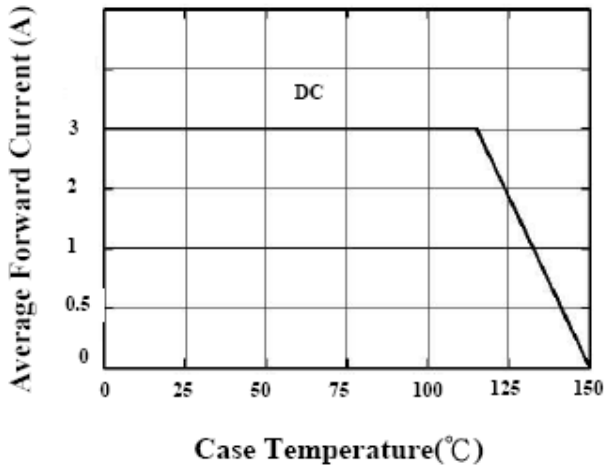


Fig.2- Typical Instantaneous Forward

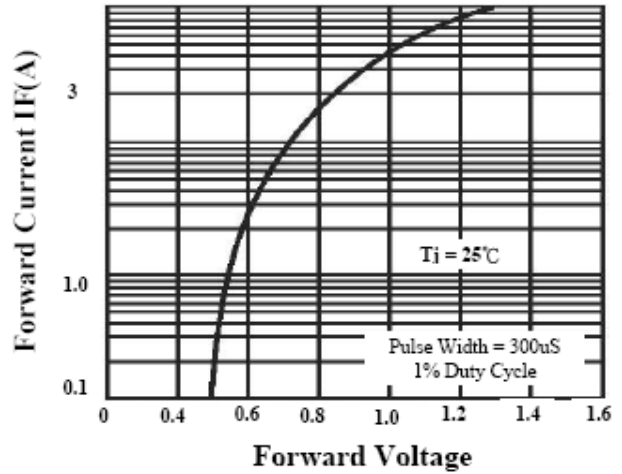


Fig.3- Typical Reverse

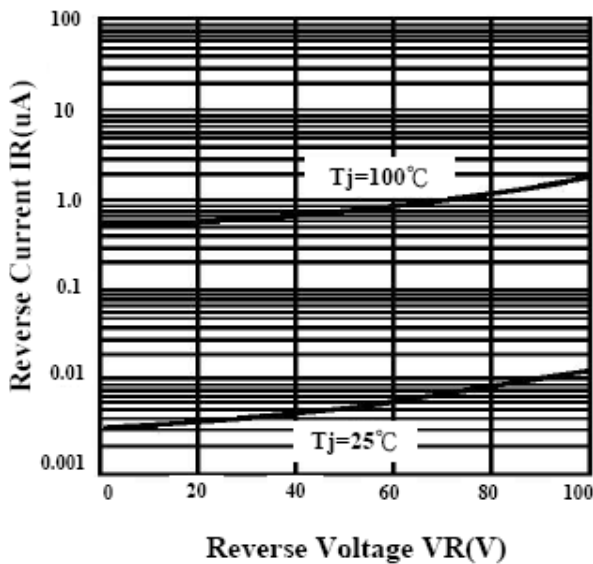
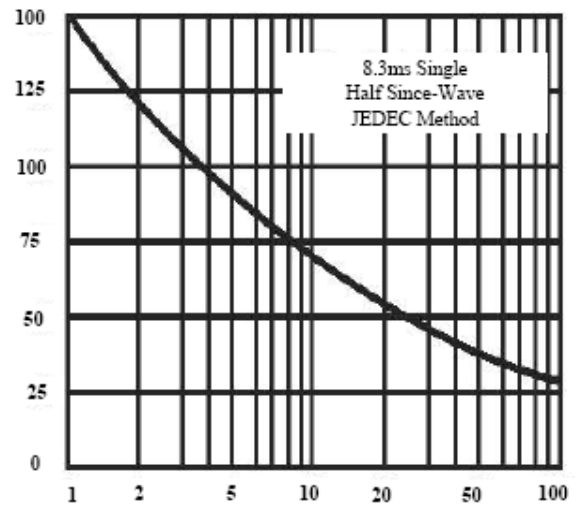
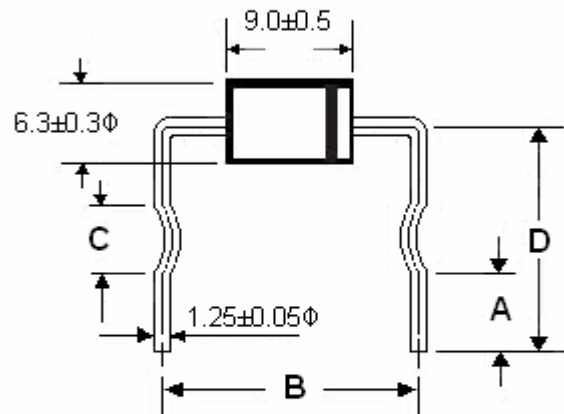


Fig.4- Tmaximum Non -Repetitive Surge Current



Forming Dimension

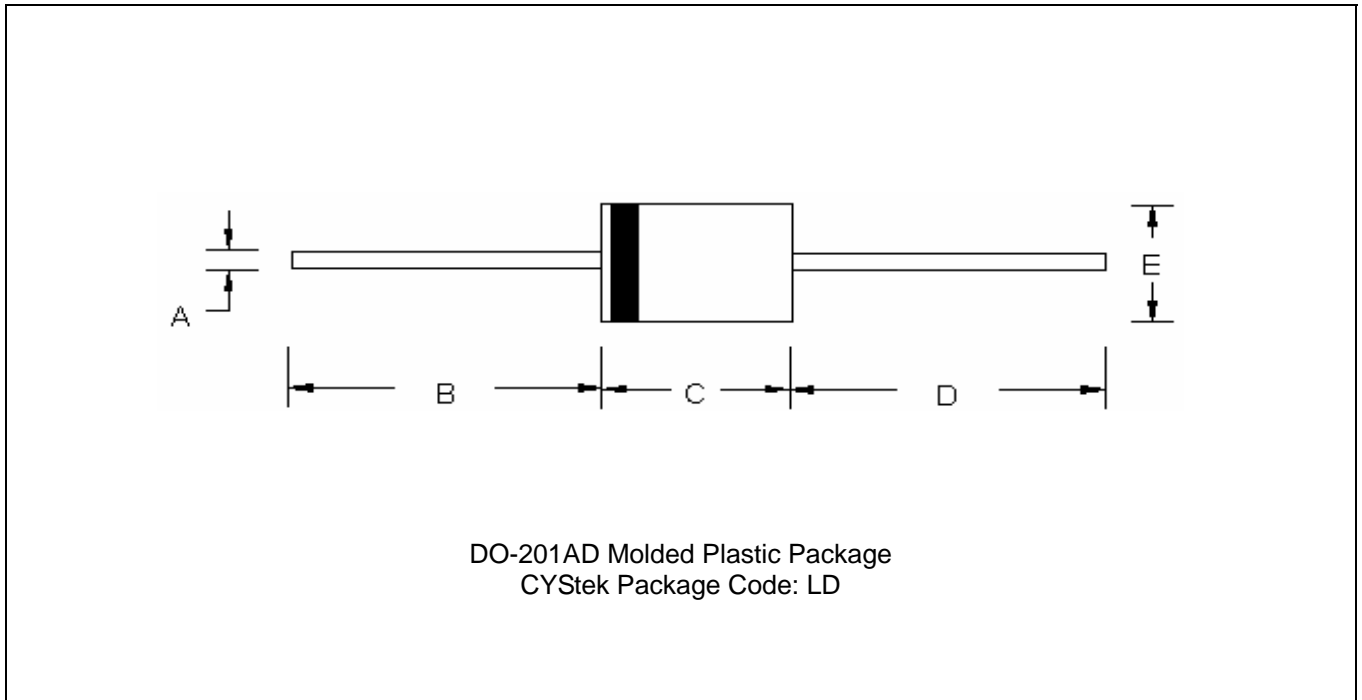
M23



A	B	C	D
3.5 ± 0.5	20.0 ± 1.0	5	14.0 ± 1.0

Dimensions in millimeter

DO-201AD Dimension



DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	φ0.048	φ0.052	φ1.20	φ1.30	D	1.000	-	25.40	-
B	1.000	-	25.40	-	E	φ0.197	φ0.220	φ5.00	φ5.60
C	0.285	0.375	7.20	9.50					

Notes : 1. Controlling dimension : millimeters.
 2. Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 3. If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material :

- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed.
- Mold Compound : Epoxy resin family, flammability solid burning class: UL94V-0

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