3A,200-1000V Standard Rectifiers

Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- For general purpose applications
- Moisture sensitivity: level 1, per J-STD-020
- For fast switching and low logic level applications
- High temperature soldering guaranteed: 260℃/10 seconds

DO-201AD

Applications

- Small battery charger, Power supplies

Maximum Ratings & Electrical Characteristics (TA=25℃ unless otherwise noted)

Parameter	Symbol	BY251	BY252	BY253	BY254	BY255	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	3					A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	200					A
Operating junction temperature range	T_J	-55 to +135					°C
Storage temperature range	T_{STG}	-55 to +150					°C

Thermal-Mechanical Specifications (TA=25℃ unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	52	°C /W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	25	°C /W
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	13	°C /W

Electrical Specifications(T_A=25℃ unless otherwise noted)								
Parameter	**Symbol**	**Test Conditions**	**BY251**	**BY252**	**BY253**	**BY254**	**BY255**	**Unit**
Forward Drop Voltage	V_F	I_F=3A	1.10					V
Reverse leakage current @V_R	I_R	T_J =25℃	5					uA
		T_J =125℃	100					
Typical junction capacitance	C_J	4.0 V 1 MHZ	60					pF

Note：

1. Valid provided that leads at a distance of 9.5 mm from case are kept at ambient temperature.

Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)

FIG.1-FORWARD CURRENT DERATING CURVE

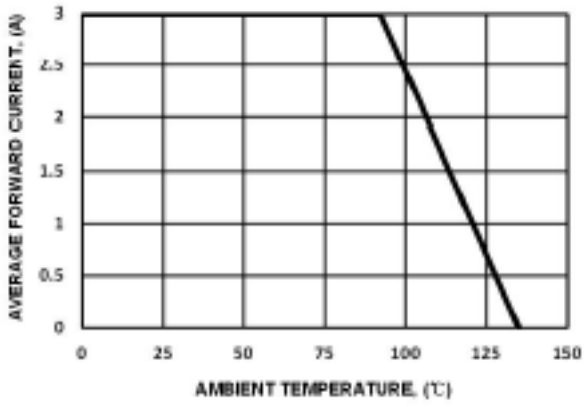


FIG 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

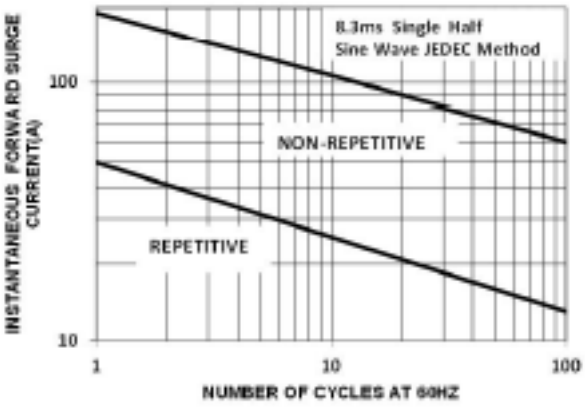


FIG 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

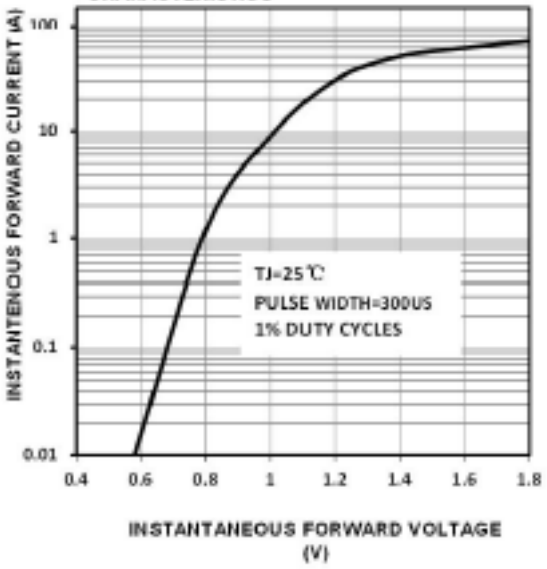


FIG 4 - TYPICAL JUNCTION CAPACITANCE

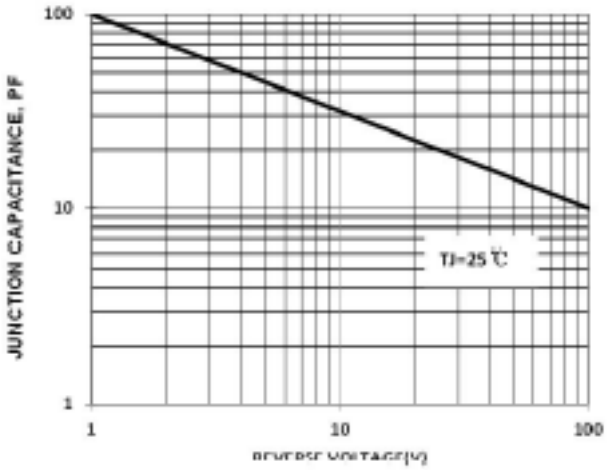
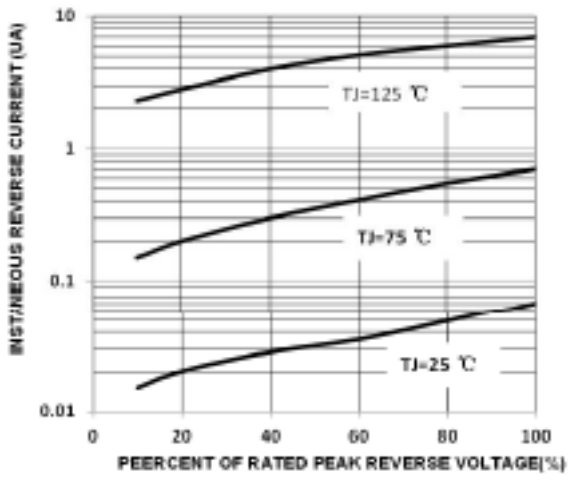


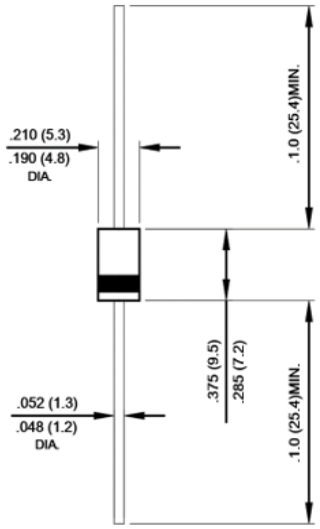
FIG5-TYPICAL REVERSE CHARACTERISTICS



Package Outline Dimensions

in inches (millimeters)

DO-201AD



Dimensions in inches and (millimeters)

Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2024.02.22	Modify document format

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