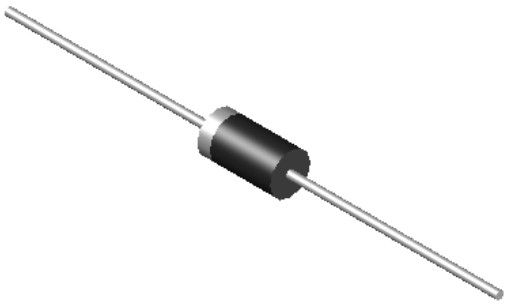
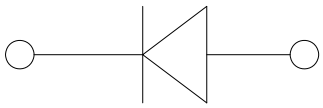
Schottky Barrier Rectifier





Features

- Guardring for overvoltage protection
- Low power loss
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package**: DO-201AD(DO-27)
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	1N5820	1N5821	1N5822
Device marking code			1N5820	1N5821	1N5822
Repetitive Peak Reverse Voltage	V_{RRM}	V	20	30	40
Average Rectified Output Current @60Hz sine wave, Resistance load, Ta (FIG.1)	I_O	A	3.0		
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	80		
Storage Temperature	Tstg	℃	-55 ~+150		
Junction Temperature	Tj	℃	-55 ~+125		

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	1N5820	1N5821	1N5822
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=3.0A	0.475	0.5	0.525
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	mA	T_a=25℃	0.2		
			T_a=100℃	20		
Typical junction capacitance	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	180		

Note1:Pulse test:300uS pulse widh,1% duty cycle

Note2:Pulse test:pulse widh 40mS

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	1N5820	1N5821	1N5822
Thermal Resistance	$R_{\theta J-A}$	℃/W	25		

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N5820~1N5822	D1	Approximate 0.950	1250	1250	12500	Tape
1N5820~1N5822	C1	Approximate 0.950	250	250	12500	Bulk

■ Characteristics(Typical)

FIG.1: Io-Ta Curve

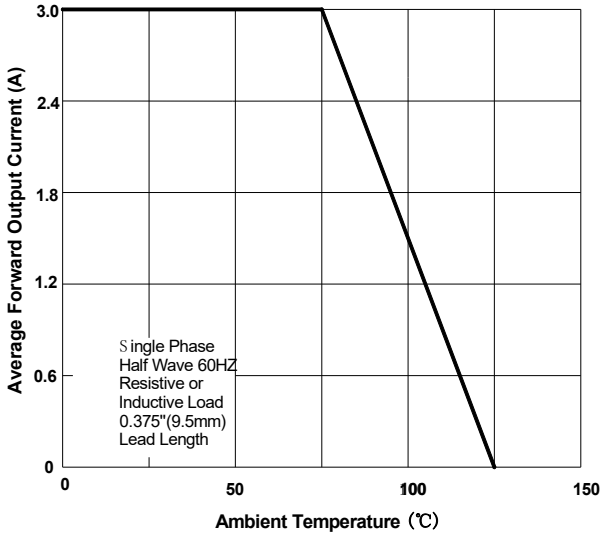


FIG.2: Forward Surge Current Capability

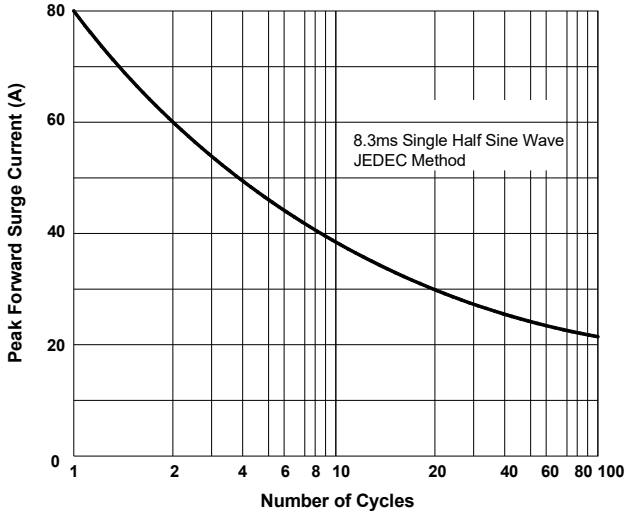


FIG.3: Forward Voltage

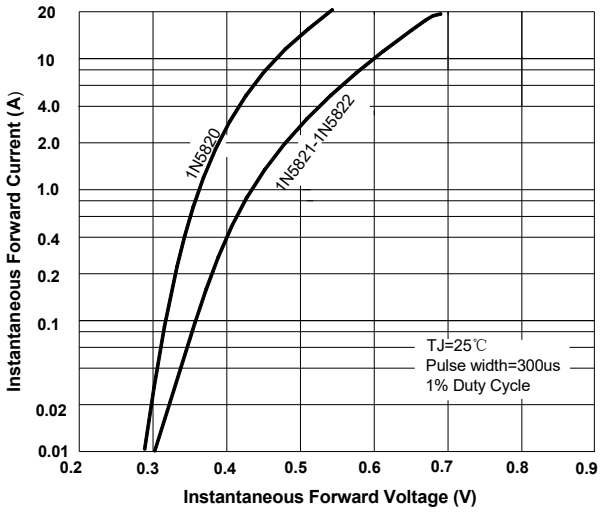
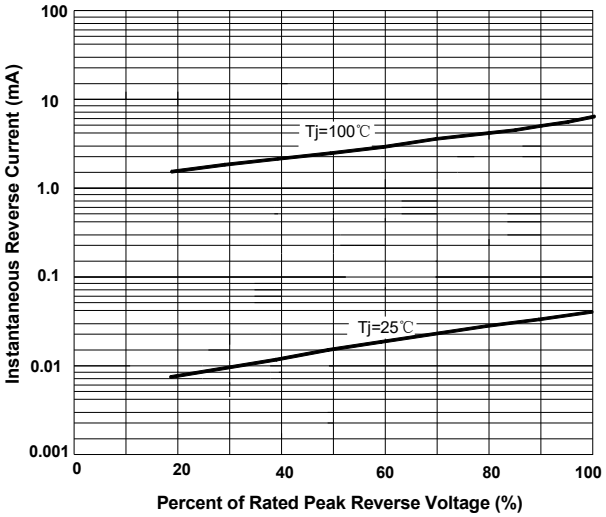
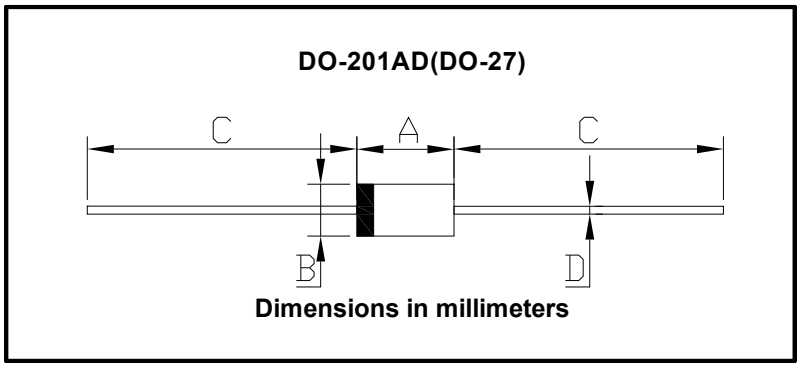


FIG.4: Typical Reverse Characteristics



■ Outline Dimensions



DO-201AD(DO-27)		
Dim	Min	Max
A	8.50	9.50
B	5.00	5.60
C	25.4	/
D	1.20	1.30

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