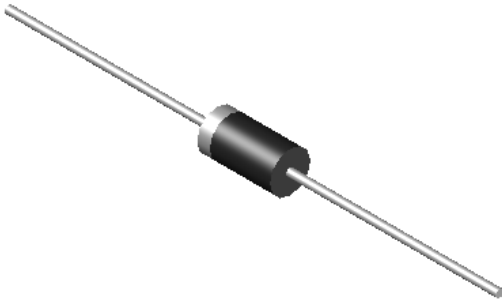


Schottky Barrier Rectifier

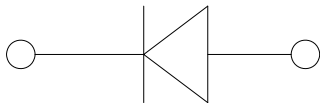


Features

- Guardring for overvoltage protection
- Very small conduction losses
- 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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SR520	SR530	SR540	SR550	SR560	SR580	SR5100	SR5150	SR5200
Device marking code			SR520	SR530	SR540	SR550	SR560	SR580	SR5100	SR5150	SR5200
Repetitive Peak Reverse Voltage	VRRM	V	20	30	40	50	60	80	100	150	200
Average Rectified Output Current @60Hz sine wave, Resistance load, T_a (FIG.1)	I_O	A	5.0								
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	IFSM	A	120								
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~+150								
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~+125				-55 ~+150				

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SR520	SR530	SR540	SR550	SR560	SR580	SR5100	SR5150	SR5200
Maximum instantaneous forward voltage drop per diode	V_F	V	IFM=5.0A	0.55			0.7		0.85			
Maximum DC reverse current at rated DC blocking voltage per diode	IR	mA	$T_a=25^\circ\text{C}$	0.2					0.1			
			$T_a=100^\circ\text{C}$	20					5			
Typical junction capacitance	C_j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C	250								



SR520 THRU SR5200

■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SR520	SR530	SR540	SR550	SR560	SR580	SR5100	SR5150	SR5200
Thermal Resistance	R θ J-A	$^\circ\text{C}/\text{W}$	20								

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SR520~SR5200	D1	Approximate 1.05	1250	1250	12500	Tape
SR520~SR5200	C1	Approximate 1.05	250	250	12500	Bulk

■ Characteristics (Typical)

FIG.1: I_o - T_a Curve

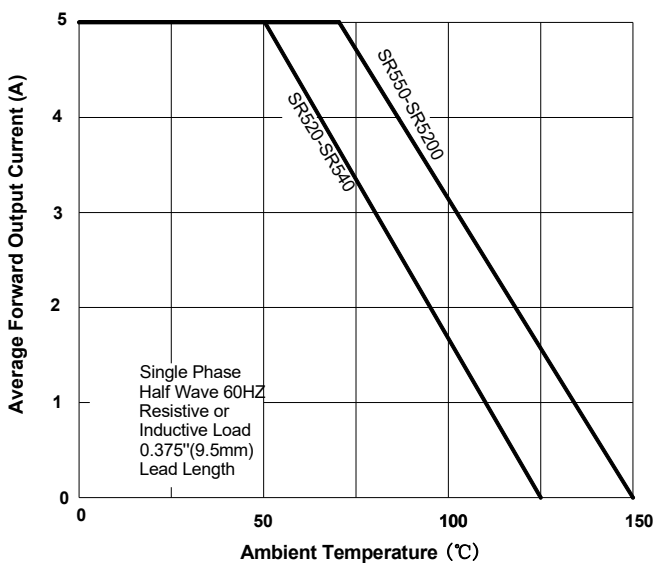


FIG.2: Forward Surge Current Capability

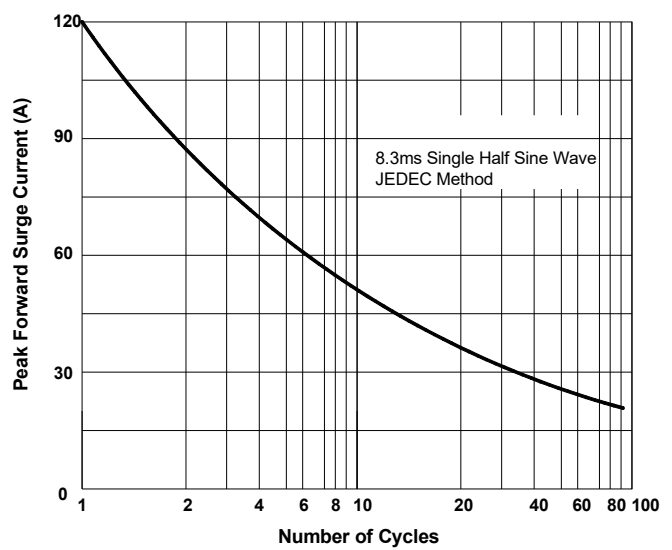


FIG.3: Forward Voltage

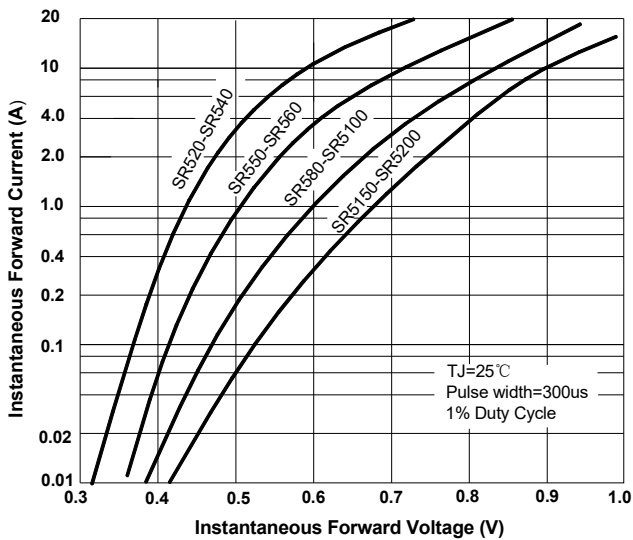
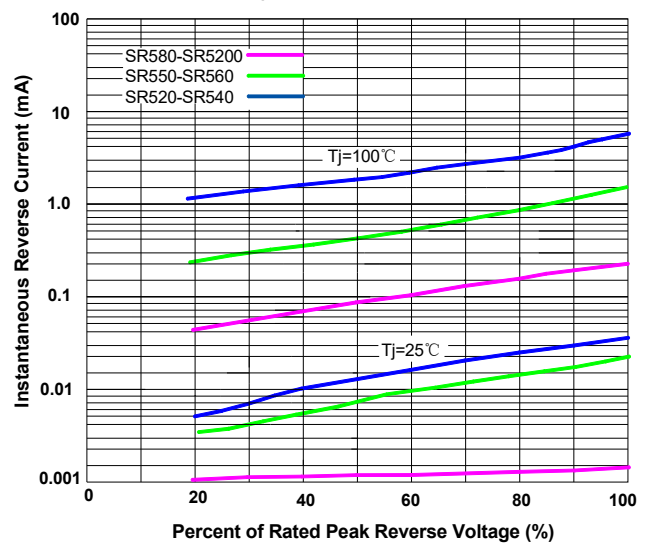
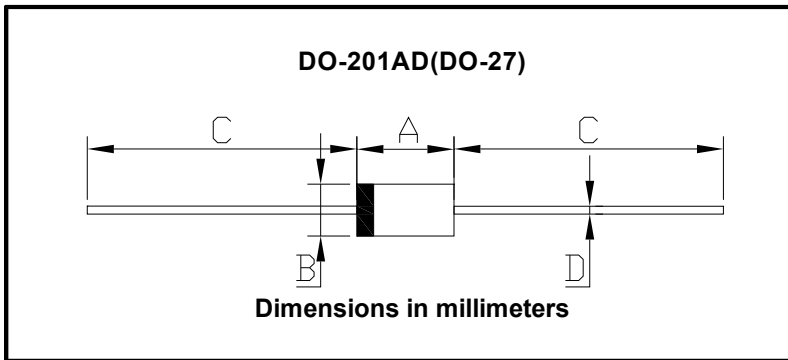


FIG.4: Typical Reverse Characteristics





■ 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



SR520 THRU SR5200

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