

■ **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-204AL(DO-41)  
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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SR120	SR140	SR160	SR1100	SR1150	SR1200
Device marking code			SR120	SR140	SR160	SR1100	SR1150	SR1200
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	20	40	60	100	150	200
Average Rectified Output Current @60Hz sine wave, Resistance load, Ta (FIG.1)	I <sub>o</sub>	A	1.0					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Ta=25°C	I <sub>FSM</sub>	A	30					
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+150					
Junction Temperature	T <sub>j</sub>	°C	-55 ~+125			-55 ~+150		

■ **ELECTRICAL CHARACTERISTICS** (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SR120	SR140	SR160	SR1100	SR1150	SR1200
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =1.0A	0.55		0.7	0.85		
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	mA	T <sub>a</sub> =25°C	0.2			0.1		
			T <sub>a</sub> =100°C	20			5		
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	50			40	25	

■ **THERMAL CHARACTERISTICS** (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SR120	SR140	SR160	SR1100	SR1150	SR1200
Thermal Resistance	R <sub>θJ-A</sub>	°C/W	50					

### PACKAGING INFORMATION

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SR120~SR1200	D1	Approximate 0.27	Approximate 5000	5000	50000	Tape
SR120~SR1200	C1	Approximate 0.27	Approximate 1000	1000	50000	Bulk

### CHARACTERISTICS (TYPICAL)

FIG.1: I<sub>o</sub>-T<sub>a</sub> Curve

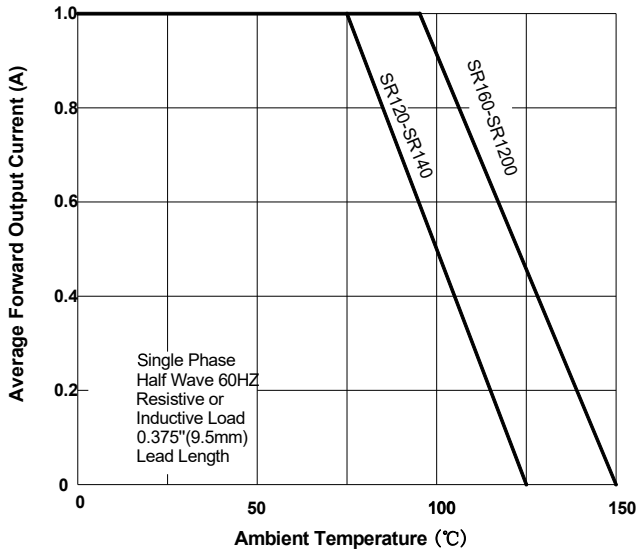


FIG.2: Forward Surge Current Capability

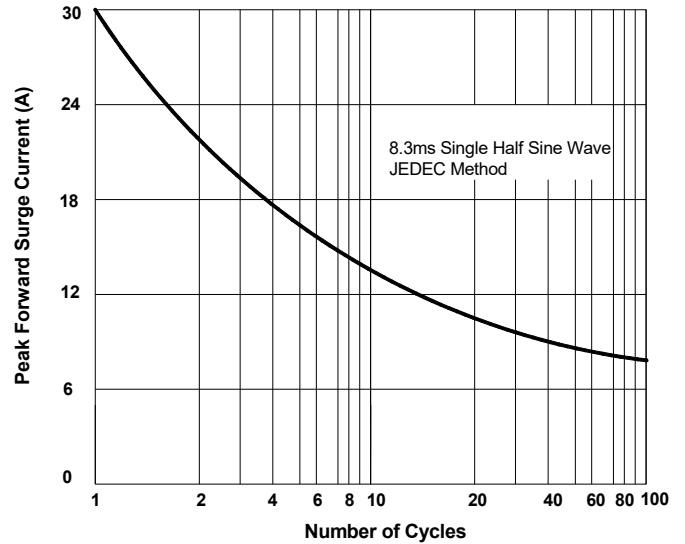


FIG.3: Forward voltage

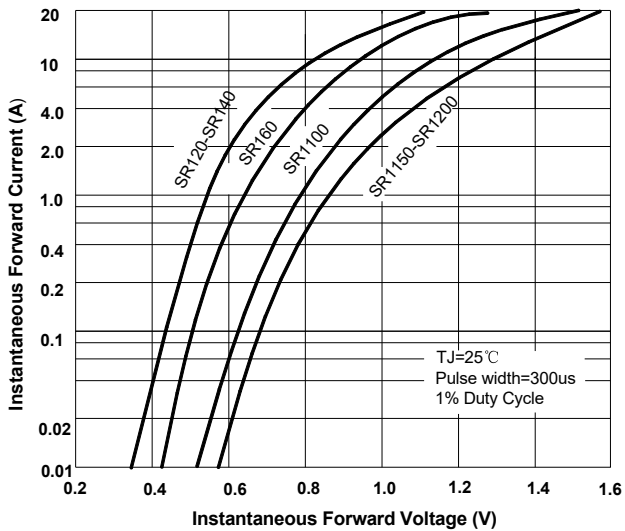
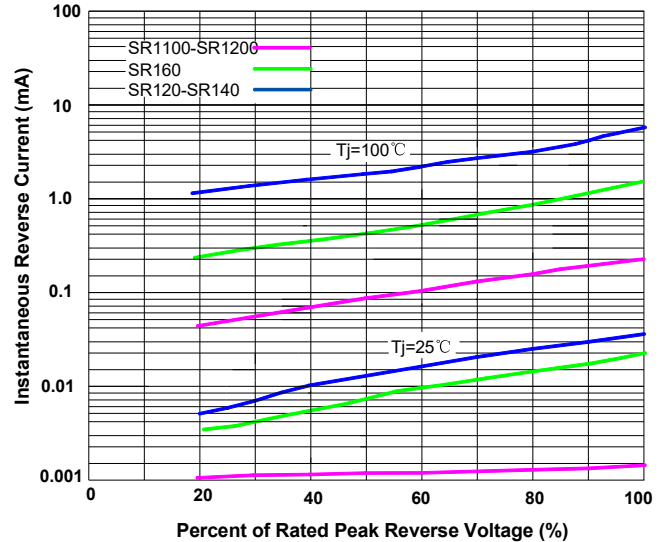
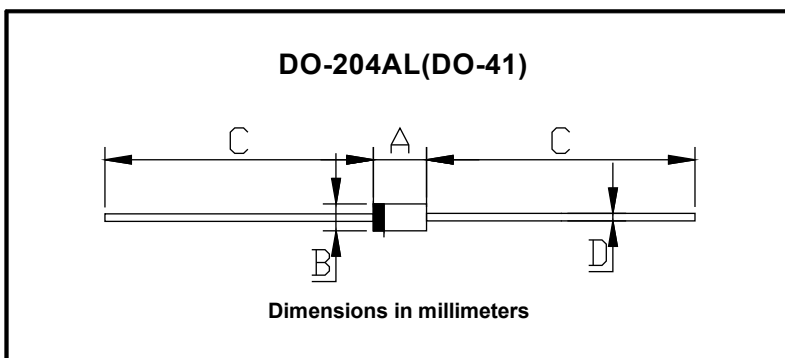


FIG.4: Typical Reverse Characteristics



### OUTLINE DIMENSIONS



DO-204AL(DO-41)		
Dim	Min	Max
A	4.22	5.21
B	2.03	2.72
C	25.4	/
D	0.69	0.86