

Rectifier diodes

Order code	Manufacturer code	Description
47-2400	S1A	S1A DO-214 1A POWER DIODE
47-2402	S1B	S1B DO-214 1A POWER DIODE
47-2404	S1D	S1D DO-214 1A POWER DIODE
47-2406	S1G	S1G DO-214 1A POWER DIODE
47-2408	S1J	S1J DO-214 1A POWER DIODE
47-2410	S1A REEL 1800	REEL 1800 S1A POWER DIODE
47-2412	S1B REEL 1800	REEL 1800 S1B POWER DIODE
47-2414	S1D REEL 1800	REEL 1800 S1D POWER DIODE
47-2416	S1G REEL 1800	REEL 1800 S1G POWER DIODE
47-2418	S1J REEL 1800	REEL 1800 S1J POWER DIODE
47-2420	n/a	S1A D0-214 POWER DIODE (7500)
47-2422	n/a	S1B POWER DIODE (7500)
47-2424	n/a	S1D POWER DIODE (7500)
47-2426	n/a	S1G POWER DIODE (7500)
47-2428	n/a	S1J POWER DIODE (7500)

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The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

S1A
THRU
S1M

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SILICON RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 1.0 Ampere

FEATURES

- * Ideal for surface mounted applications
- * Low leakage current
- * Glass passivated junction

MECHANICAL DATA

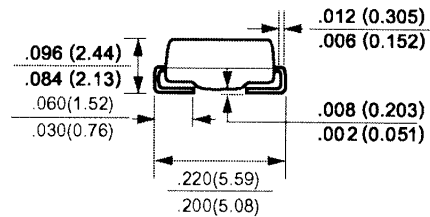
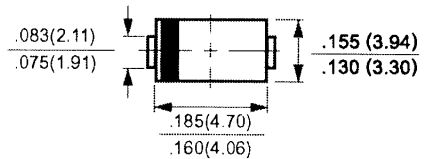
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



SMB (DO-214AA)



Dimensions in inches and (millimeters)

	SYMBOL	S1A	S1B	S1D	S1G	S1J	S1K	S1M	UNITS	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	Vbc	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current at TA = 75°C	Io	1.0							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							Amps	
Maximum Instantaneous Forward Voltage at 1.0A DC	VF	1.1							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@TA = 25°C	5.0							uAmps
		@TA = 100°C	100							
Maximum Reverse Recovery Time (Note 3)	ttr	2.5							uSec	
Typical Thermal Resistance (Note 2)	RθJL	12							°C/W	
Typical Junction Capacitance (Note 1)	Cj	30							pF	
Operating and Storage Temperature Range	TJ, Tstg	-65 to + 175							°C	

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 2. Thermal Resistance (Junction to Ambient), 0.2x0.2in² (5X5mm²) copper pads to each terminal.
 3. Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

RATING AND CHARACTERISTIC CURVES (S1A THRU S1M)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

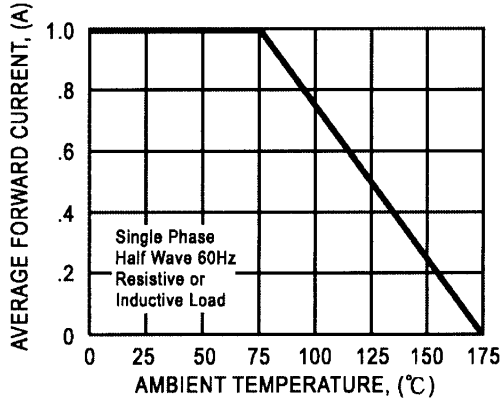


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

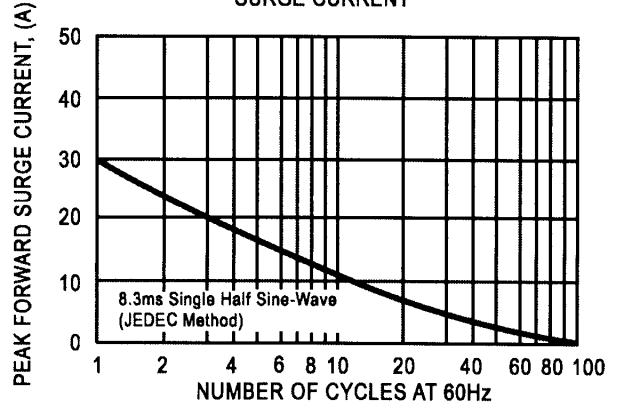


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

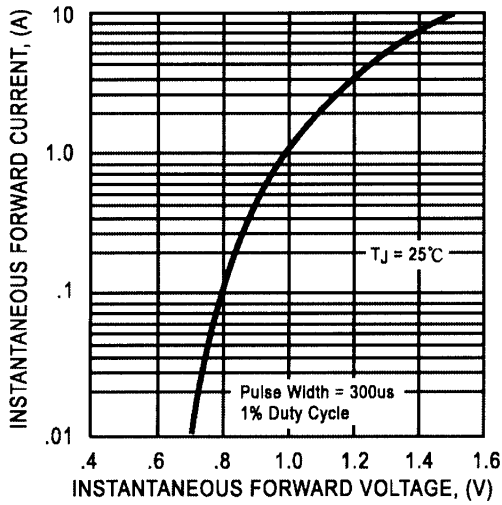


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

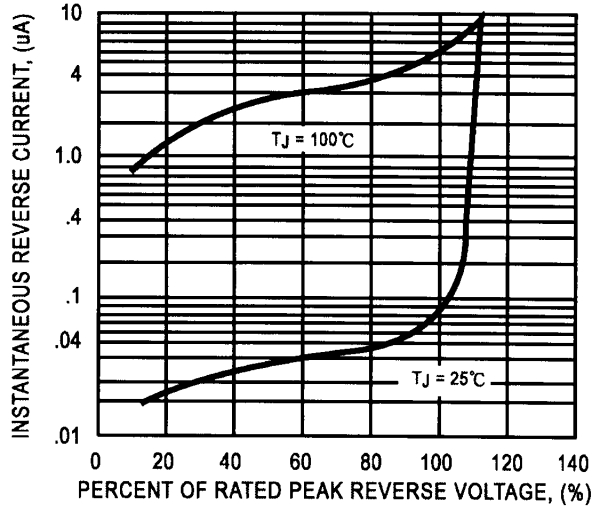


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

