



# 1 AMP SUPER-EFFICIENT RECTIFIERS

## FEATURES

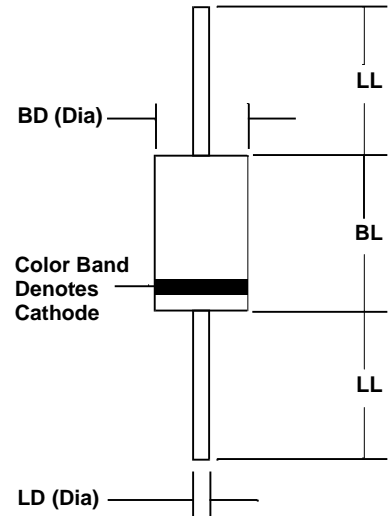
- Low switching noise
- Low forward voltage drop
- Low thermal resistance
- High switching capability
- High surge capability
- High reliability

## MECHANICAL SPECIFICATION

ACTUAL SIZE OF  
DO-41 PACKAGE

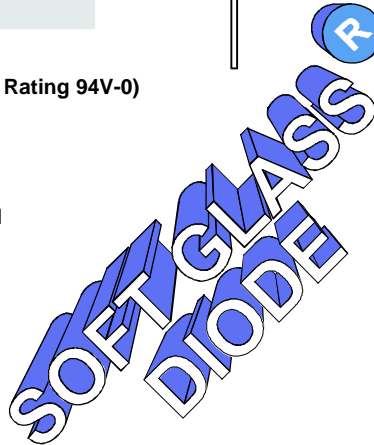
**SERIES SPR11 - SPR14**

**DO - 41**



## MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Solderability: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.013 Ounces (0.35 Grams)



Sym	Minimum		Maximum	
	In	mm	In	mm
BL	0.160	4.1	0.205	5.2
BD	0.103	2.6	0.107	2.7
LL	1.00	25.4		
LD	0.028	0.71	0.034	0.86

## MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS				UNITS
		SPR11	SPR12	SPR13	SPR14	
<b>Series Number</b>		SPR11	SPR12	SPR13	SPR14	
Maximum DC Blocking Voltage	V <sub>RM</sub>	100	200	300	400	VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	210	280	
Maximum Peak Recurrent Reverse Voltage	V <sub>RRM</sub>	100	200	300	400	
Average Forward Rectified Current @ T <sub>A</sub> = 55 °C	I <sub>O</sub>	1				AMPS
Peak Forward Surge Current ( 8.3mS single half sine wave superimposed on rated load)	I <sub>FSM</sub>	30				
Maximum Forward Voltage at 1 Amp DC	V <sub>FM</sub>	0.95		1.25		VOLTS
Maximum Average DC Reverse Current @ T <sub>c</sub> = 25 °C At Rated DC Blocking Voltage @ T <sub>c</sub> = 100 °C	I <sub>RM</sub>	2.0		50		µA
Typical Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	50				°C/W
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	50				pF
Maximum Reverse Recovery Time (I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>RR</sub> =0.25A)	T <sub>RR</sub>	35				nSec
Junction Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150				°C

NOTES: (1) Measured at 1 MHz and an applied reverse voltage of 4 volts.

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