DIOTEC ELECTRONICS CORP
18020 Hobart Blvd., Unit B
Gardena, CA 90248 U.S.A
Tel.: (310) 767-1052 Fax: (310) 767-7958

Data Sheet No. SESA-100-1B

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 DATA

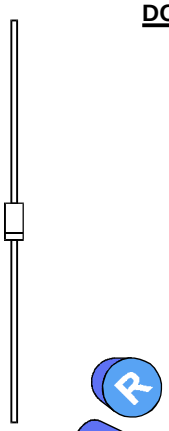
- Case: JEDEC DO-41 molded plastic (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Solderability: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.013 Ounces (0.35 Grams)

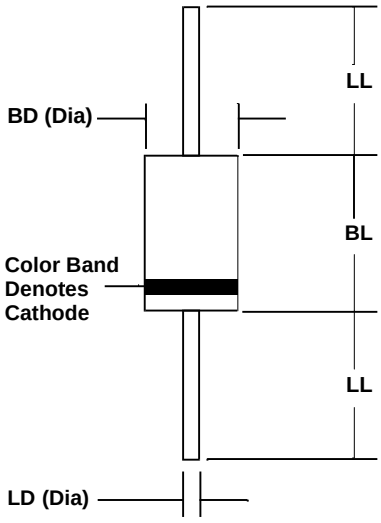
MECHANICAL SPECIFICATION

ACTUAL SIZE OF DO-41 PACKAGE

SERIES SPR11 - SPR14

DO - 41





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

SOFT GLASS® DIODE

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
Series Number		SPR11	SPR12	SPR13	SPR14	
Maximum DC Blocking Voltage	V_{RM}	100	200	300	400	VOLTS
Maximum RMS Voltage	V_{RMS}	70	140	210	280	
Maximum Peak Recurrent Reverse Voltage	V_{RRM}	100	200	300	400	
Average Forward Rectified Current @ T_A = 55 °C	I_O	1				AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I_{FSM}	30				
Maximum Forward Voltage at 1 Amp DC	V_{FM}	0.95			1.25	VOLTS
Maximum Average DC Reverse Current @ T_C = 25 °C At Rated DC Blocking Voltage @ T_C = 100 °C	I_{RM}	2.0 50				µA
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	50				°C/W
Typical Junction Capacitance (Note 1)	C_J	50				pF
Maximum Reverse Recovery Time (I_F=0.5A, I_R=1A, I_{RR}=0.25A)	T_{RR}	35				nSec
Junction Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150				°C

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

4.97fsesa1

DIOTEC ELECTRONICS CORP.
18020 Hobart Blvd., Unit B
Gardena, CA 90248 U.S.A
Tel.: (310) 767-1052 Fax: (310) 767-7958

1 AMP SUPER EFFICIENT RECTIFIERS

RATING & CHARACTERISTIC CURVES FOR SERIES SPR11 - SPR14

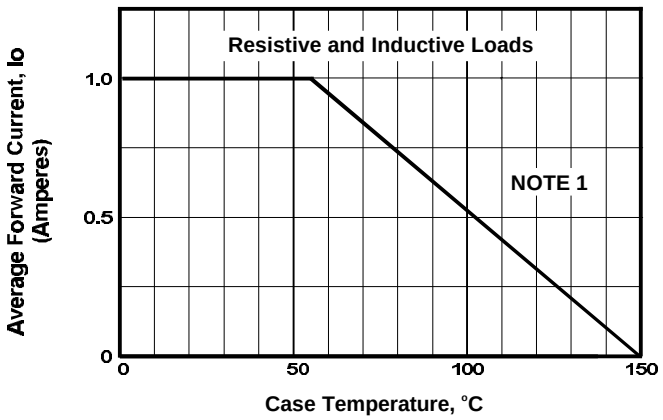


FIGURE 1. FORWARD CURRENT DERATING CURVE

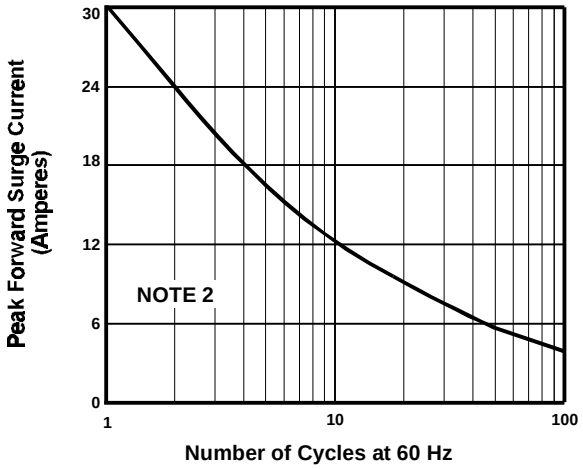


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

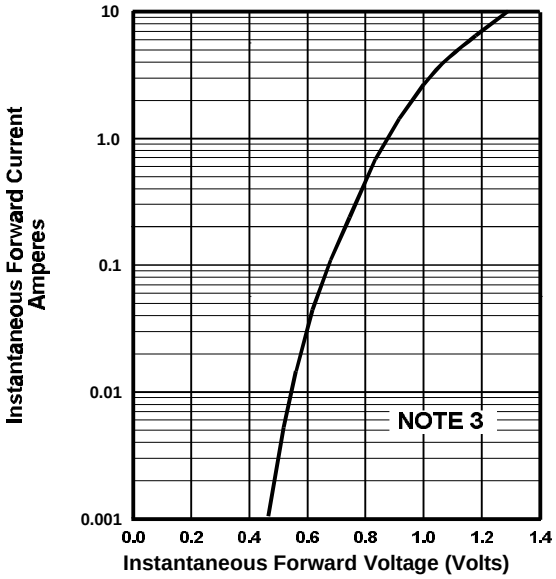


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

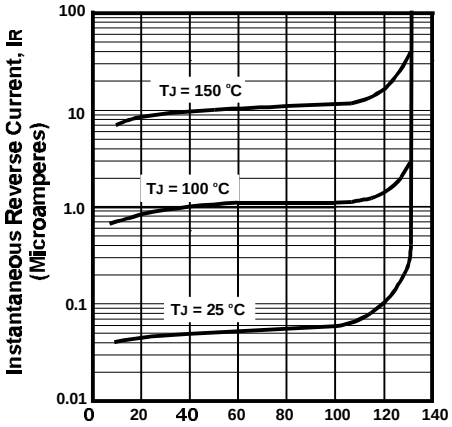


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

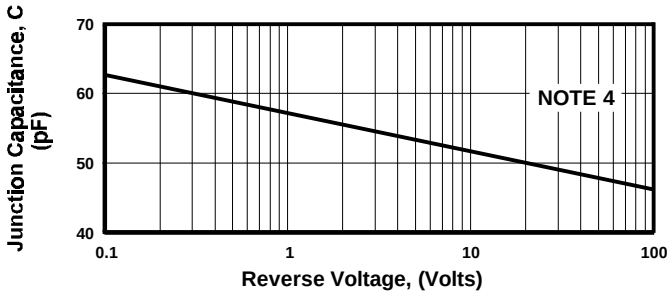


FIGURE 5. TYPICAL JUNCTION CAPACITANCE

NOTES

(1) Single Phase, Half Wave, 60 Hz; Lead Length = 0.375" (9.5mm)

(2) JEDEC Method, 8.3 mSec. Single Half Sine Wave

(3) T_J = 25 °C, Pulse Width = 300 μSec, 1.0% Duty Cycle

(4) T_J =25°C, f = 1.0 MHz, 2% Duty Cycle.

4.97bsesa1