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. SBDA-302-1B

3 AMP SCHOTTKY BARRIER RECTIFIERS

FEATURES

- Metal semiconductor junction with guard ring
- Epitaxial Construction
- Low forward voltage drop
- High current capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

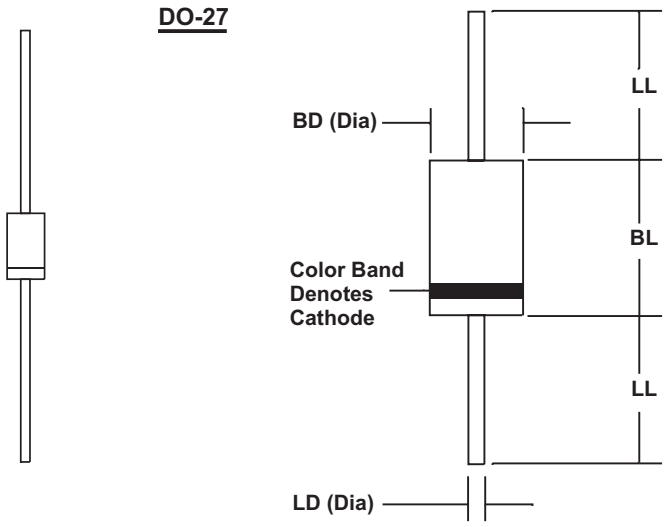
- Case: JEDEC DO-27 molded epoxy (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Solderability: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.04 Ounces (1.12 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF DO-27 PACKAGE

SERIES SK302 - SK310

DO-27



Sym	Minimum		Maximum	
	In	mm	In	mm
BL			0.365	9.28
BD			0.205	5.2
LL	1.00	25.4		
LD	0.048	1.2	0.052	1.3

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		SK302	SK304	SK306	SK307	SK310	
Maximum DC Blocking Voltage	V_{RM}	20	40	60	70	100	VOLTS
Maximum RMS Voltage	V_{RMS}	14	28	42	49	70	
Maximum Peak Recurrent Reverse Voltage	V_{RRM}	20	40	60	70	100	
Average Forward Rectified Current @ T_L = 90 °C (T_L measured on cathode lead, 1/32 in. from case))	I_O	3					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I_{FSM}	120				100	
Maximum Forward Voltage at 3 Amps DC	V_{FM}	0.5		0.7		0.8	VOLTS
Maximum Average DC Reverse Current @ T_L= 25 °C At Rated DC Blocking Voltage (Note 1) @ T_L = 100 °C	I_{RM}	0.5 20					mA
Typical Thermal Resistance, Junction to Ambient	$R\theta_{JA}$	20					°C/W
Typical Junction Capacitance (Note 2)	C_J	250					pF
Junction Operating Temperature Range	T_J	-65 to +125				-65 to +150	°C
Storage Temperature Range	T_{STG}	-65 to +150					

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NOTES: (1) Lead temperature reference is cathode lead 1/32 in from case.
(2) Measured at 1MHz & applied reverse voltage of 4 volts

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RATING & CHARACTERISTIC CURVES FOR SERIES SK302 - SK310

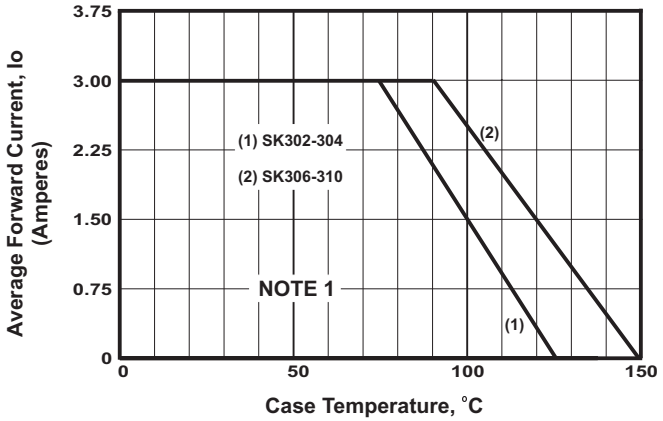


FIGURE 1. FORWARD CURRENT DERATING CURVE

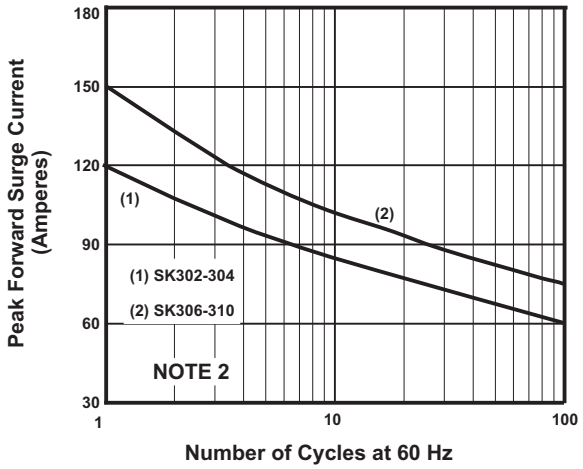


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

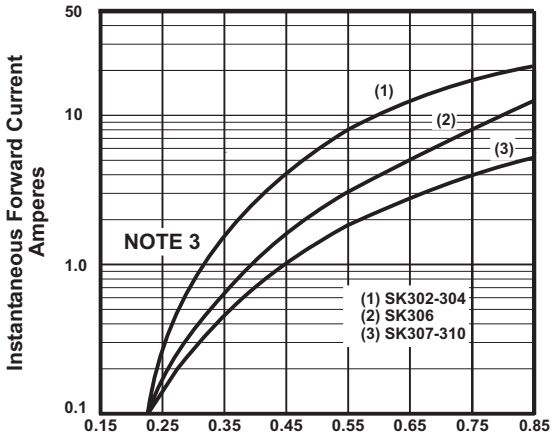


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

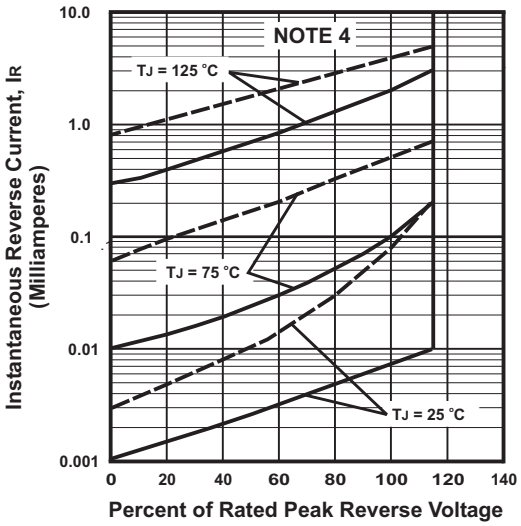


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

NOTES

(1) Single Phase, Half Wave, 60 Hz, Resistive or Inductive Load, 0.375" (9mm) Lead Length

(2) JEDEC Method, 8.3 mSec. Single Half Sine Wave, Tc = 95 °C

(3) TJ = 25 °C, Pulse Width = 300 μSec, 2.0% Duty Cycle

(4) Legend for Figure 4, Typical Reverse Characteristics:

– – – – SK302-306

——— SK307-310

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