

## Features

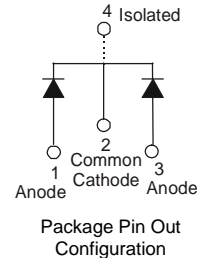
- Low Forward Voltage Drop
- Soft, Fast Switching Capability
- Schottky Barrier Chip
- ITO-220S Heat Sink Tab Electrically Isolated from Cathode
- UL Approval in Accordance with UL 1557, Reference No. E94661



Top View



Bottom View



## Mechanical Data

- Case: ITO-220S
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208 ②③
- Marking Information: See Page 2
- Ordering Information: See Page 2
- Weight: 1.335 grams ITO-220S (approximate)

## Maximum Ratings (Per Leg) @T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>RM</sub>		
Average Rectified Output Current (Per Leg)	I <sub>o</sub>	5	A
(Total)		10	
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	110	A
Isolation Voltage From Terminal Heatsink t = 1 min.	V <sub>AC</sub>	2000	V

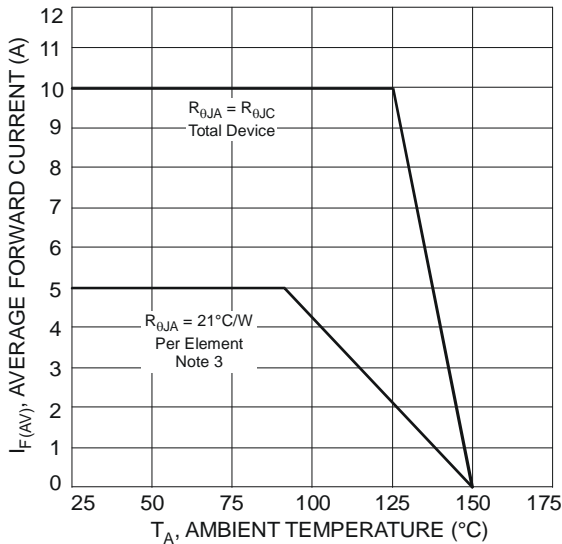
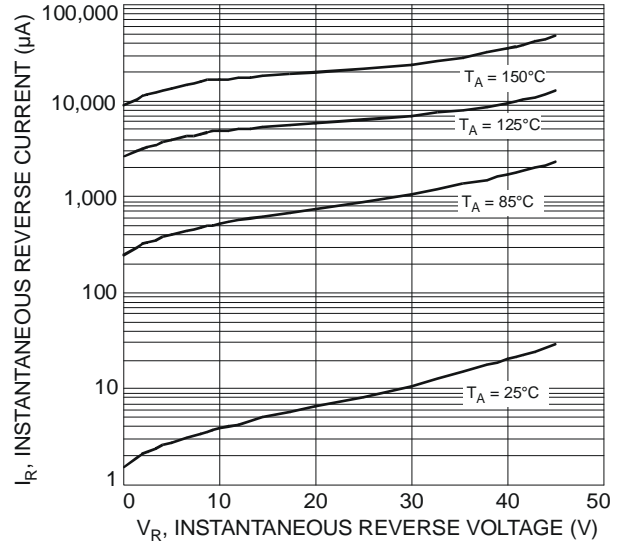
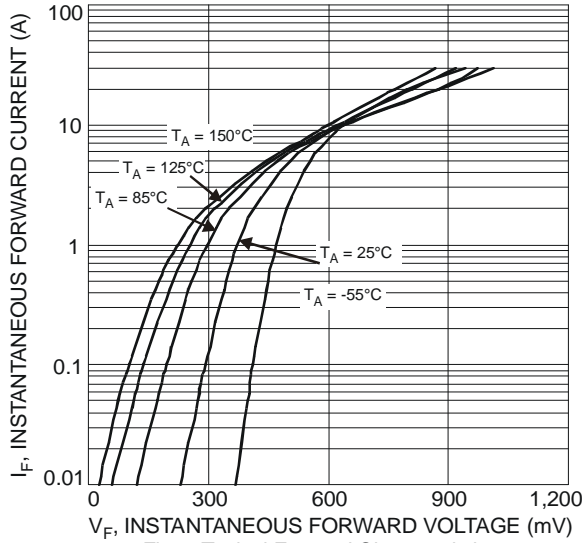
## Thermal Characteristics (Per Leg)

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Case	R <sub>θJC</sub>	3	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

## Electrical Characteristics (Per Leg) @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V <sub>F</sub>	-	-	0.56	V	I <sub>F</sub> = 5A, T <sub>J</sub> = 25°C
Leakage Current (Note 1)	I <sub>R</sub>	-	-	0.5 50	mA	V <sub>R</sub> = 40V, T <sub>J</sub> = 25°C V <sub>R</sub> = 40V, T <sub>J</sub> = 100°C

Notes: 1. Short duration pulse test used to minimize self-heating effect.

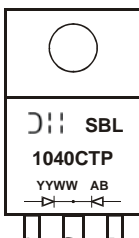


**Ordering Information** (Note 2)

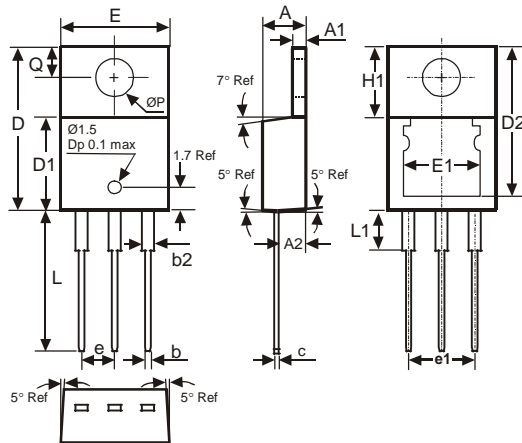
Part Number	Case	Packaging
SBL1040CTP	ITO-220S	50 pieces/tube

Notes: 2. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**



SBL1040CTP = Product Type Marking Code  
 AB = Foundry and Assembly Code  
 YYWW = Date Code Marking  
 YY = Last two digits of year (ex: 08 = 2008)  
 WW = Week (01-52)

**Package Outline Dimensions**


ITO-220S			
DIM.	MIN.	MAX.	TYP.
A	4.52	4.62	4.57
A1	0.51	1.39	–
A2	2.57	2.77	2.67
b	0.72	0.95	0.84
b2	1.15	1.34	1.26
c	0.356	0.61	–
D	14.22	16.51	15.00
D1	8.60	8.80	8.70
D2	13.68	14.08	–
e	2.49	2.59	2.54
e1	4.98	5.18	5.08
E	10.01	10.21	10.11
E1	6.86	8.89	–
H1	5.85	6.85	–
L	13.30	13.90	13.60
L1	–	4.00	–
P	3.54	4.08	–
Q	2.54	3.42	–
<b>All Dimensions in mm</b>			

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