

**Power Schottky Rectifier - 40Amp 45Volt**

**Features**

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- High Junction Temperature Capability
- Low forward voltage, high current capability
- High surge capacity
- Low power loss, high efficiency
- Halogen-Free

**Application**

- Switching-Mode Power Supply
- Solar-System Control Box

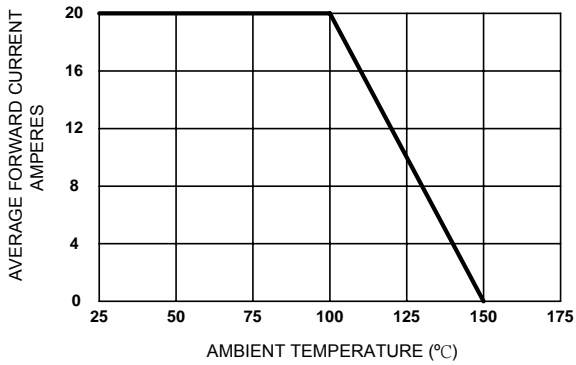
**Absolute maximum ratings**

Symbol	Ratings	Unit	Conditions
IF(AV)	40	A	Average Forward Current
VRRM	45	V	Repetitive Peak Reverse Voltage
IFSM	400	A	Peak Forward Surge Current
VF	0.55	V	Forward Voltage Drop
Tj, Tstg	-50 to +150	°C	Operating and Storage Temperature

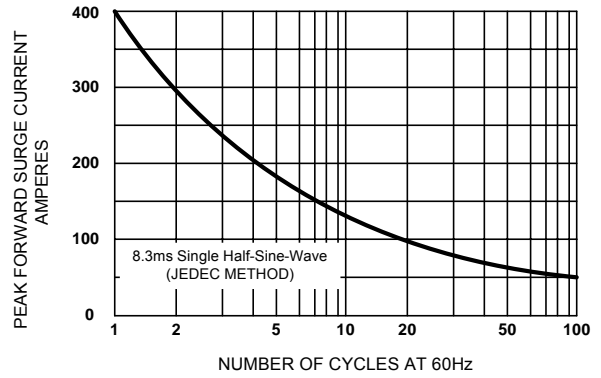
**Electrical characteristics**

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	VF	0.60V	Per Leg at IF = 20A Tc = 25°C
		0.55V	Tc = 125°C
Maximum Reverse Leakage Current	IR	1.0mA	Per Leg at VR = 45V Tc = 25°C
Typical Thermal Resistance, Junction to Case	Rθ(j-c)	2.2 °C/W	Per Leg TO-220AB / TO-262 / TO-263
		4.5 °C/W	ITO-220AB

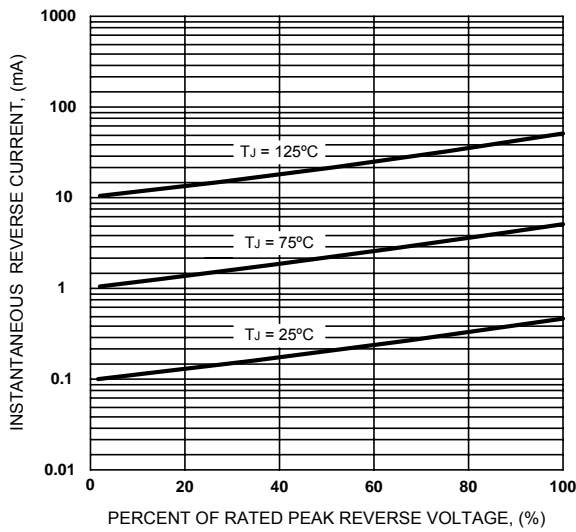
- Note : 1.Mounted on P.C.B with copper pad size 20mm x 30mm, thickness 1.5mm  
 2.Reverse Surge 3.0A @ 0.004ms, 10 cycle  
 3.Repetitive Peak Reverse Current (IRRM) 0.5A @ Per Leg at tp = 2μs, 1kHz



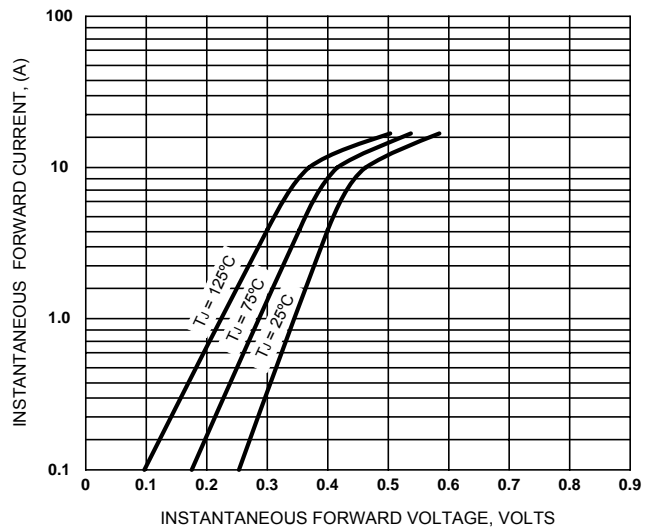
**Figure 1. Forward Current Derating Curve**



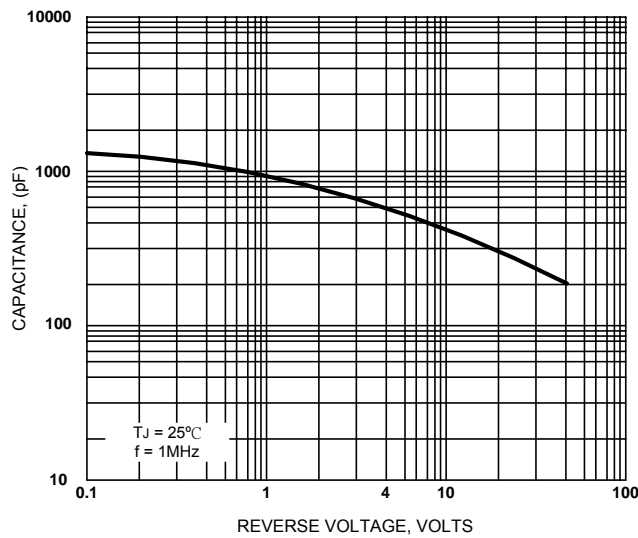
**Figure 2. Maximum Non-repetitive Surge Current**



**Figure 3. Typical Reverse Characteristics**



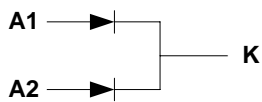
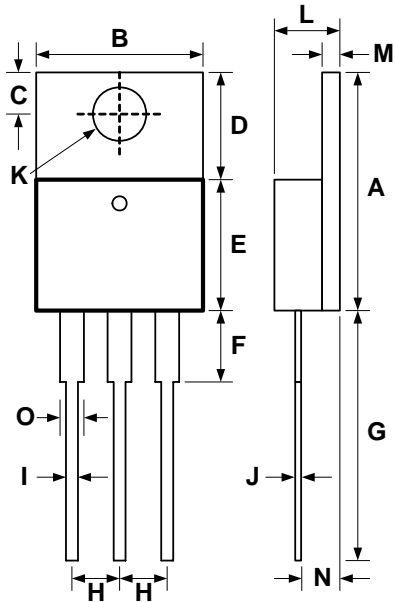
**Figure 4. Typical Forward Characteristics**



**Figure 5. Typical Junction Capacitance**

**SBL40B45CTH**

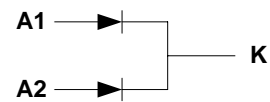
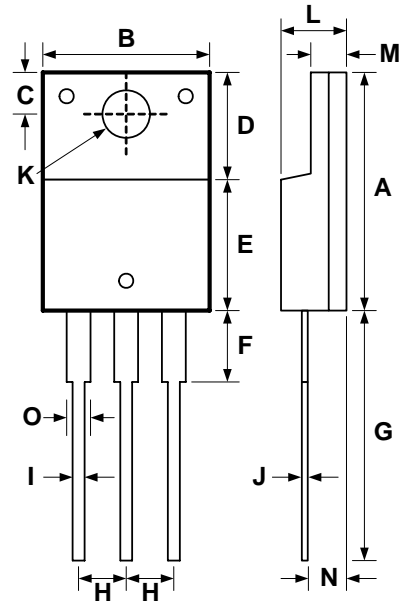
**TO-220AB**



DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.593	.612	15.05	15.55	
B	.392	.411	9.95	10.45	
C	.104	.116	2.65	2.95	
D	.244	.264	6.20	6.70	
E	.339	.358	8.60	9.10	
F	.154	.173	3.90	4.40	
G	.539	.559	13.70	14.20	
H	.096	.108	2.45	2.75	
I	.028	.037	0.70	0.95	
J	.012	.020	0.30	0.50	
K	.146	.157	3.70	4.00	
L	.175	.187	4.45	4.75	
M	.045	.057	1.15	1.45	
N	.098	.114	2.50	2.90	
O	.047	.057	1.20	1.45	

**SBL40B45FCTH**

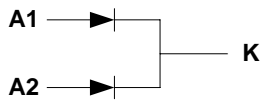
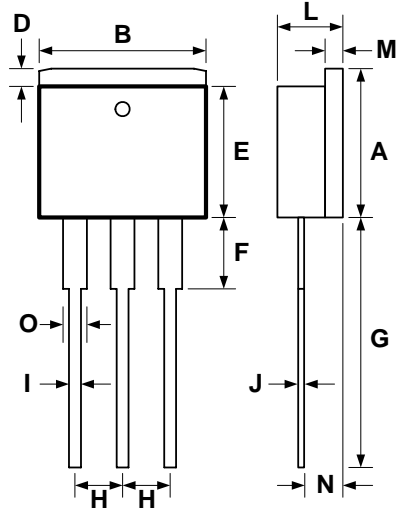
**ITO-220AB**



DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.585	.604	14.85	15.35	
B	.386	.406	9.80	10.30	
C	.100	.112	2.55	2.85	
D	.250	.270	6.35	6.85	
E	.325	.344	8.25	8.75	
F	.132	.152	3.35	3.85	
G	.520	.539	13.20	13.70	
H	.096	.108	2.45	2.75	
I	.020	.028	0.50	0.70	
J	.020	.028	0.50	0.70	
K	.120	.132	3.05	3.35	
L	.169	.185	4.30	4.70	
M	.114	.130	2.90	3.30	
N	.098	.114	2.50	2.90	
O	.043	.055	1.10	1.40	

**SBL40B45CRH**

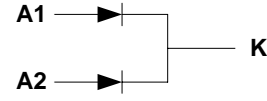
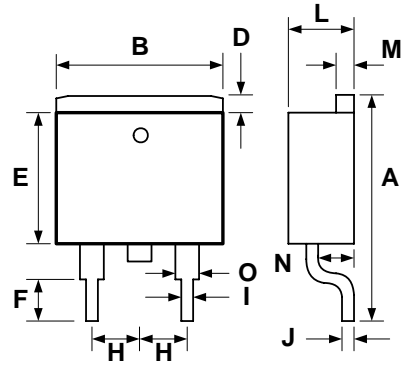
**T0-262**



DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.398	.417	10.10	10.60	
B	.391	.411	9.95	10.45	
D	.049	.065	1.25	1.65	
E	.338	.358	8.60	9.10	
F	.153	.173	3.90	4.40	
G	.539	.559	13.70	14.20	
H	.096	.108	2.45	2.75	
I	.027	.037	0.70	0.95	
J	.012	.020	0.30	0.50	
L	.175	.187	4.45	4.75	
M	.045	.057	1.15	1.45	
N	.098	.114	2.50	2.90	
O	.047	.057	1.20	1.45	

**SBL40B45CGH**

**T0-263**



DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.590	.610	15.00	15.50	
B	.391	.411	9.95	10.45	
D	.049	.065	1.25	1.65	
E	.338	.358	8.60	9.10	
F	.087	.106	2.20	2.70	
H	.096	.108	2.45	2.75	
I	.027	.037	0.70	0.95	
J	.012	.020	0.30	0.50	
L	.175	.187	4.45	4.75	
M	.045	.057	1.15	1.45	
N	.098	.114	2.50	2.90	
O	.047	.057	1.20	1.45	

IMPORTANT NOTICE:

Sirect and Sirectsemi are registered trademarks of Sirect Semiconductor Incorporated. Sirect reserved the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase and use.

Products described herein may be covered by one or more United States, China, Taiwan or foreign patents pending.

Sirect products are not authorized for use as critical components in life support devices or system without express written approval of Sirect.

Sirect Semiconductor Incorporated does not warrant or accept any liability whatsoever in respect of any products purchased through unauthorized sales channel. Should customers purchase or use Sirect products for any unintended or unauthorized application, customers shall indemnify and hold Sirect and its representatives harmless against all claims, damages, expenses, and attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized application.

© Sirect Semiconductor Incorporated