SIRECT ELECTRONIC

SBL4045PT

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

☐ Application

-Switching-Mode Power Supply

☐ Absolute maximum ratings

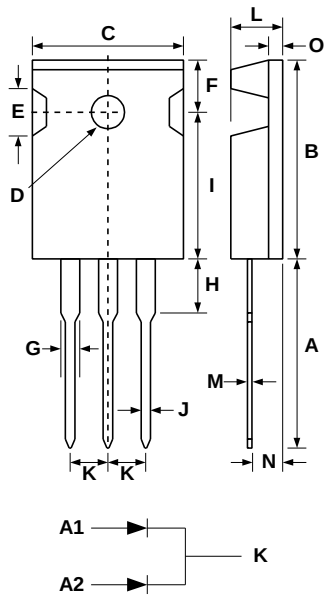
Symbol	Ratings	Unit	Conditions
$I_{F(AV)}$	40	A	At Tc=125ºC
V_{RRM}	45	V	Maximum repetitive peak reverse voltage
I_{FSM}	400	A	8.3ms single half sine-wafe single shot
$V_{F(max)}$	0.65	V	At I_F=20A, Tc=25ºC
T_j	-50 to +125	ºC	
T_{stg}	-50 to +125	ºC	

☐ Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	V_F	0.65V 0.60V	Tc=25ºC Tc=125ºC
Maximum Reverse Current At Rated DC Blocking Voltage	I_R	1.0mA	Tc=25ºC
Voltage Rate of Change	dv/dt	1,000 V/μs	Rated V_R
Typical Thermal Resistance, Junction to Case	$R_{th\ (j-c)}$	1.5 ºC/W	Per diode

Note: (1)Pulse Test : 380μs pulse width, 2% duty cycle

TO-247AD



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.780	.819	19.80	20.80	
B	.807	.846	20.50	21.50	
C	.606	.638	15.40	16.20	
D	.138	.150	3.50	3.80	
E	.226	.242	5.75	6.15	
F	.209	.224	5.30	5.70	
G	.077	.085	1.95	2.15	
H	.163	.175	4.15	4.45	
I	.591	.622	15.00	15.80	
J	.043	.051	1.10	1.30	
K	.197	.213	5.00	5.40	
L	.189	.205	4.80	5.20	
M	.024	.031	0.60	0.80	
N	.085	.096	2.15	2.45	
O	.079	.091	2.00	2.30	

January 2004

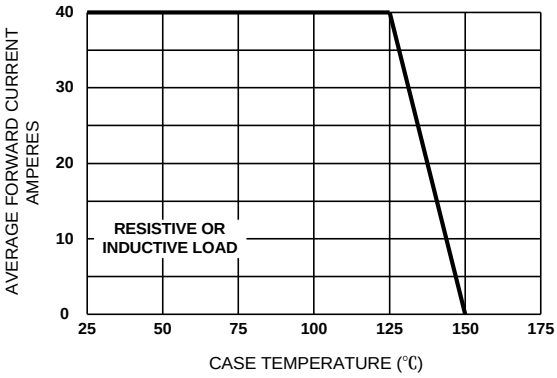


Figure 1. Forward Current Derating Curve

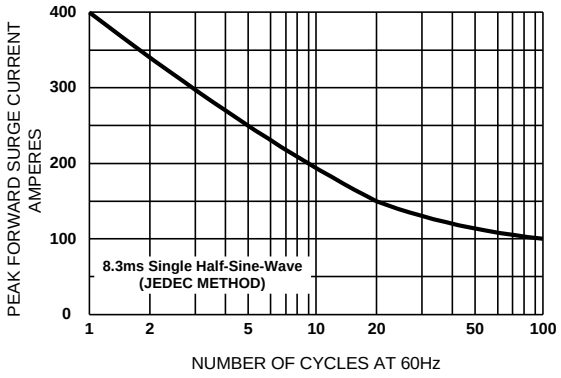


Figure 2. Maximum Non-repetitive Surge Current

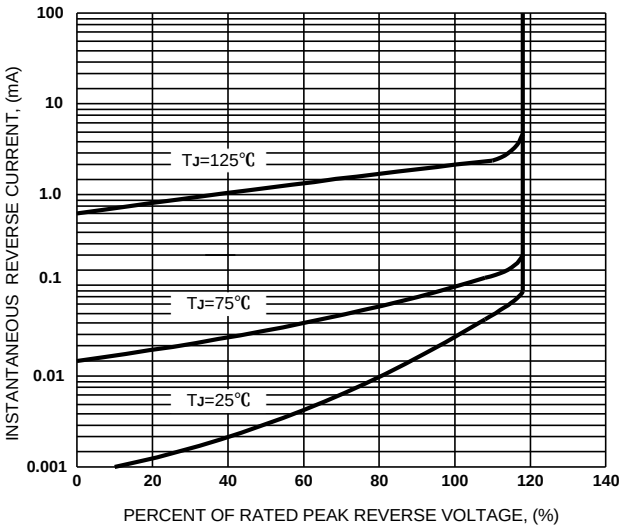


Figure 3. Typical Reverse Characteristics

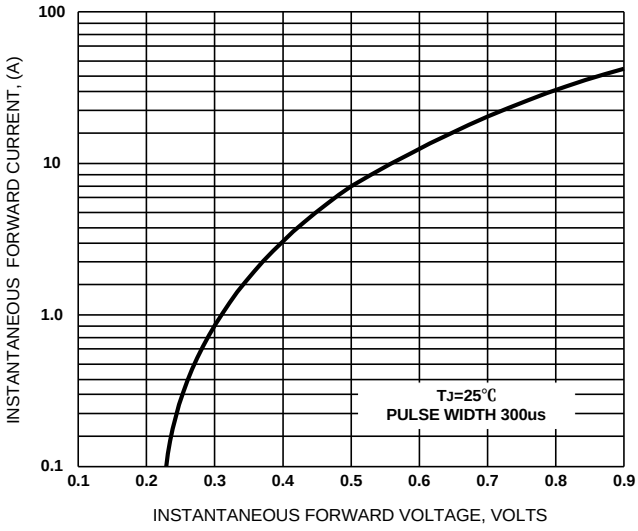


Figure 4. Typical Forward Characteristics

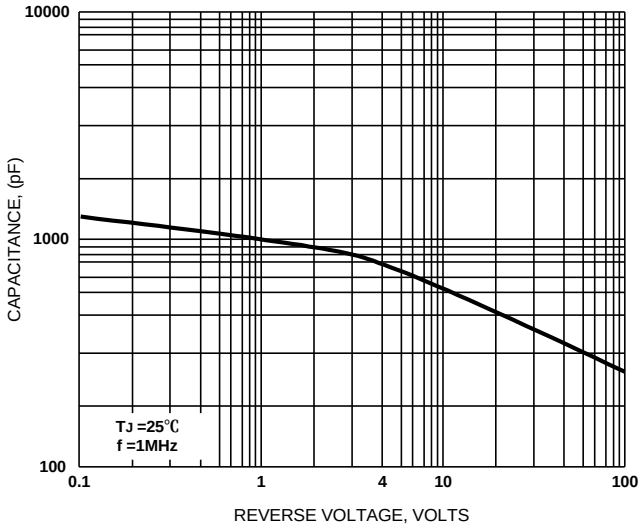


Figure 5. Typical Junction Capacitance