

Power Schottky Rectifier - 40Amp 100Volt

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
- ESD performance human body mode > 8 KV

Application

- AC/DC Switching Adaptor and TFT-LCD Power Supply
- SMPS

Absolute maximum ratings

Symbol	Ratings	Unit	Conditions
IF(AV)	40	A	Average Forward Current
VRRM	100	V	Repetitive Peak Reverse Voltage
IFSM	400	A	Peak Forward Surge Current
VF(max)	0.69	V	Forward Voltage Drop
Tj	-50 to +175	°C	Operating Temperature
Tstg	-50 to +150	°C	Storage Temperature

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	VF	0.85V	Tc = 25°C
		0.69V	Tc = 125°C
Maximum Reverse Leakage Current	IR	0.01mA	Tc = 25°C
		10mA	Tc = 125°C
Maximum Voltage Rate of Change	dv/dt	10,000 V/μs	Rated VR
Typical Thermal Resistance, Junction to Case	Rθ(j-c)	1.25 °C/W	Per diode

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

TO-247AD

The diagram shows a mechanical drawing of the TO-247AD package with dimensions labeled A through O. Below the drawing is a diode symbol with terminals A1, A2, and K.

DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.748	.827	19.00	21.00	
B	.787	.866	20.00	22.00	
C	.598	.638	15.20	16.20	
D	.130	.150	3.30	3.80	
E	.205	.242	5.20	6.15	
F	.209	.232	5.30	5.90	
G	.077	.091	1.95	2.30	
H	.161	.189	4.10	4.80	
I	.551	.610	14.00	15.50	
J	.045	.055	1.15	1.40	
K	.197	.219	5.00	5.55	
L	.189	.205	4.80	5.20	
M	.020	.031	0.50	0.80	
N	.083	.094	2.10	2.40	
O	.116	.128	2.95	3.25	

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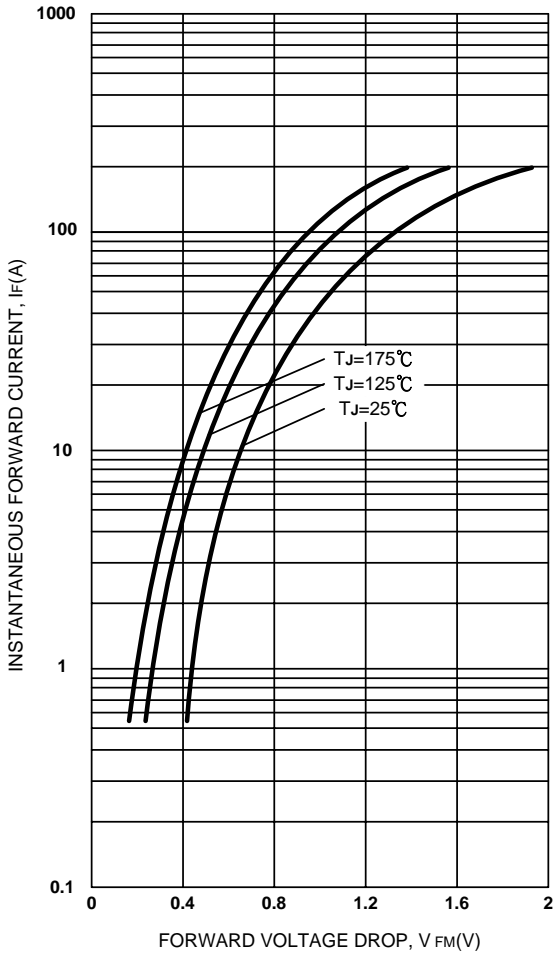


Figure 1. Max. Forward Voltage Drop Characteristics (PerLeg)

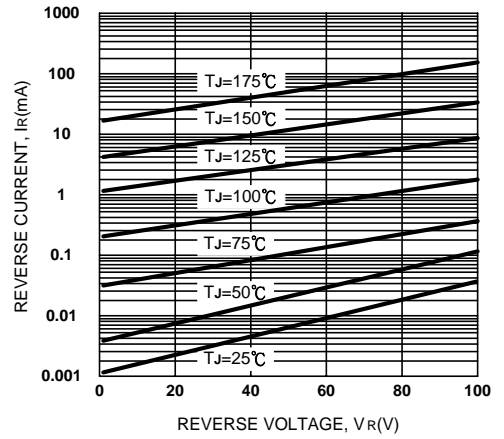


Figure 2. Typical Values Of Reverse Current Vs. Reverse Voltage (PerLeg)

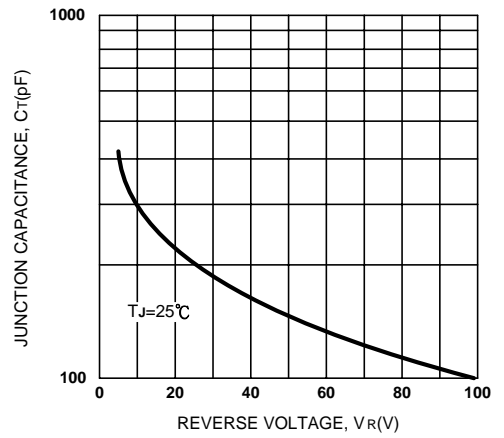


Figure 3. Typical Junction Capacitance Vs. Reverse Voltage (PerLeg)

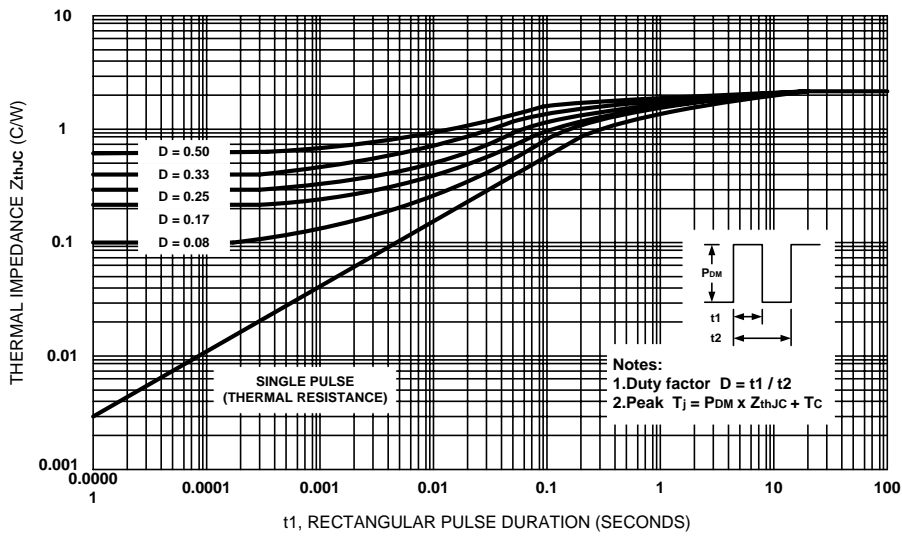


Figure 4. Max. Thermal Impedance Z_{thJC} Characteristics (PerLeg)

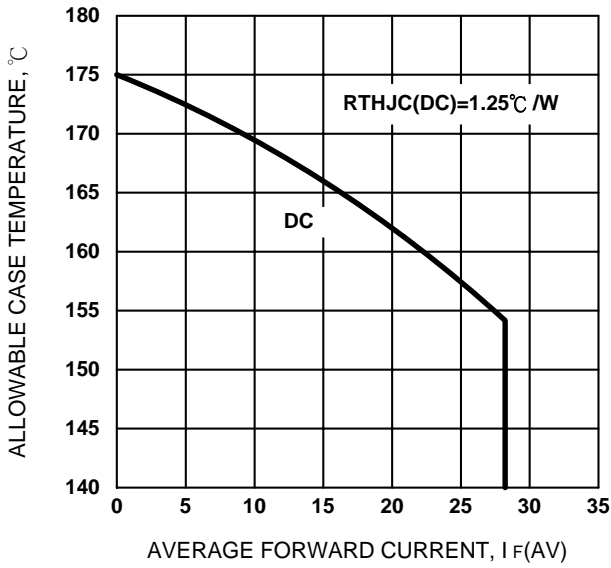


Figure 5. Max. Allowable Case Temperature Vs. Average Forward Current (PerLeg)

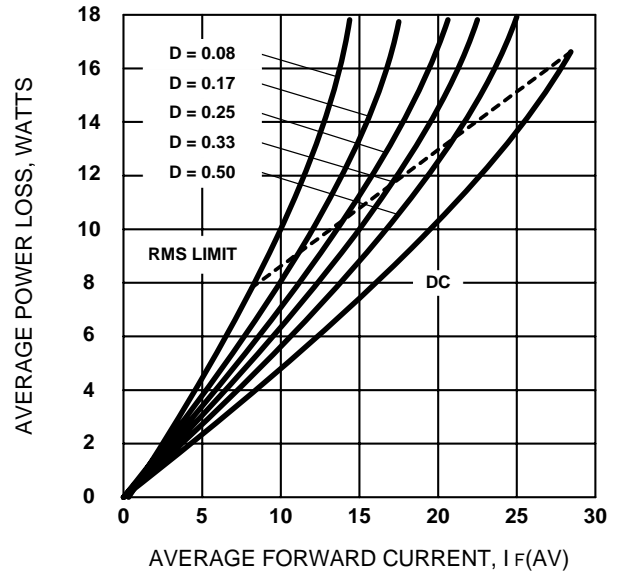


Figure 6. Forward Power Loss Characteristics (PerLeg)

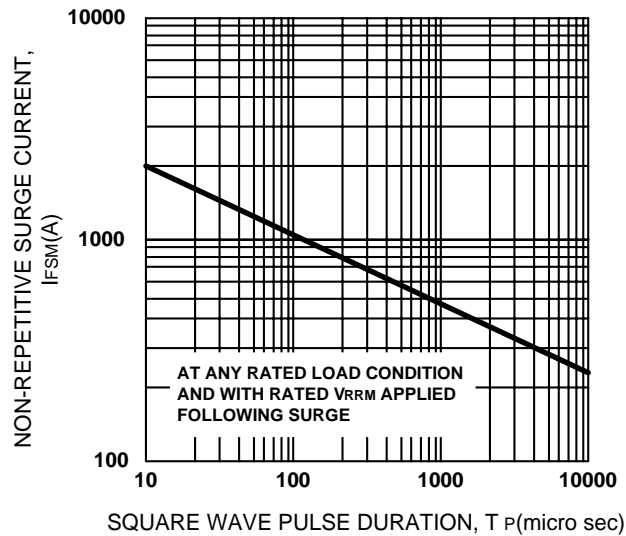


Figure 7. Max. Non-Repetitive Surge Current (PerLeg)