



2.0A HIGH EFFICIENCY SCHOTTKY BARRIER RECTIFIER POWERDI® 123

Features

- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- Low V_F and Low Leakage Current
- Patented Interlocking Clip Design for High Surge Current Capacity
- Lead Free Finish, RoHS Compliant (Note 1)
- "Green" Molding Compound (No Br, Sb)
- Qualified to AEC-Q101 Standards for High Reliability

Mechanical Data

- Case: POWERDI[®]123
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminal Connections: Cathode Band
- Terminals: Finish Matte Tin annealed over Copper Leadframe.
 Solderable per MIL-STD-202, Method 208
- Weight: 0.01 grams (approximate)



Ordering Information (Note 2)

Part Number	Case	Packaging
DFLS230LH-7	POWERDI [®] 123	3000/Tape & Reel

Notes:

- 1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes
- 2. For packaging details, go to our website at http://www.diodes.com.

Marking Information



F03H = Product Type Marking Code YM = Date Code Marking

Y = Year (ex: T = 2006) M = Month (ex: 9 = September)

Date Code Key

Year	2005		2006	2007	'	2008	2009		2010	2011		2012
Code	S		T	U		V	W		Χ	Υ		Z
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	0	N	D



Maximum Ratings @TA = 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 Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Average Forward Current	I _{F(AV)}	2.0	А
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	75	A

Thermal Characteristics

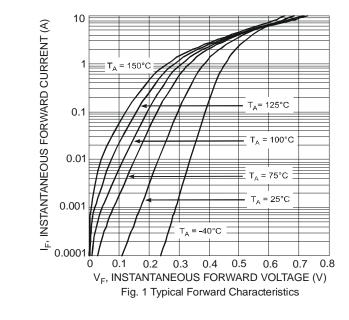
Characteristic	Symbol	Тур	Max	Unit
Thermal Resistance Junction to Soldering Point (Note 3)	$R_{\theta JS}$	_	6	°C/W
Operating Temperature Range	TJ	-65 to	+150	°C
Storage Temperature Range	T _{STG}	-65 to	+150	°C

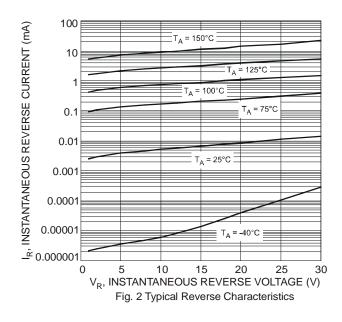
Electrical Characteristics @TA = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 4)	$V_{(BR)R}$	30		_	V	$I_R = 200 \mu A$
Forward Voltage	V _F			0.45		I _F = 2A, T _J = 25°C
r olward voltage				0.375		I _F = 2A, T _J = 125°C
Leakage Current (Note 4)	1-			0.200	~ Λ	$V_R = 30V, T_J = 25^{\circ}C$ $V_R = 30V, T_J = 100^{\circ}C$
Leakage Current (Note 4)	I _R		6	15	mA	$V_R = 30V, T_J = 100^{\circ}C$
Total Capacitance	C _T		85	_	pF	$V_R = 10V, f = 1.0MHz$

Notes:

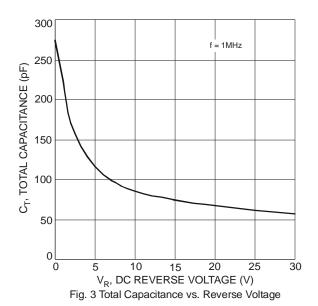
- 3. Theoretical R_{0JS} calculated from the top center of the die straight down to the PCB/cathode tab solder junction.
- 4. Short duration pulse test used to minimize self-heating effect.
- 5. Part mounted on FR-4 board with 2 oz., minimum recommended copper pad layout which can be found on our website at http://www.diodes.com. T_A = 25°C

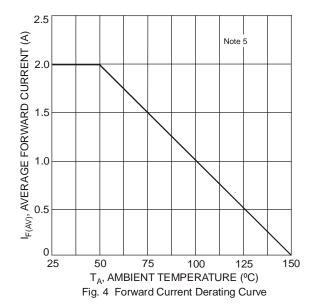




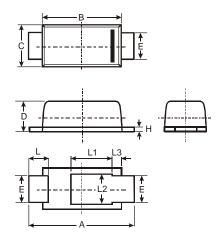
POWERDI is a registered trademark of Diodes Incorporated.





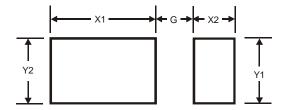


Package Outline Dimensions



POWERDI®123							
Dim	Min	Max	Тур				
Α	3.50	3.90	3.70				
В	2.60	3.00	2.80				
O	1.63	1.93	1.78				
ם	0.93	1.00	0.98				
Е	0.85	1.25	1.00				
H	0.15	0.25	0.20				
L	0.40	0.50	0.45				
L1	-	-	1.35				
L2	-	-	1.10				
L3	-	-	0.20				
All Dimensions in mm							

Suggested Pad Layout



Dimensions	Value (in mm)
G	1.0
X1	2.2
X2	0.9
Y1	1.4
Y2	1.4



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многоканальный

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001 Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

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