

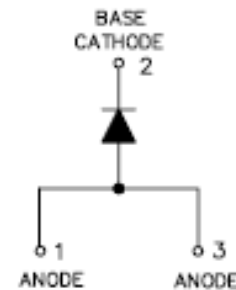
SDURD330 ULTRAFAST PLASTIC RECTIFIER

Applications:

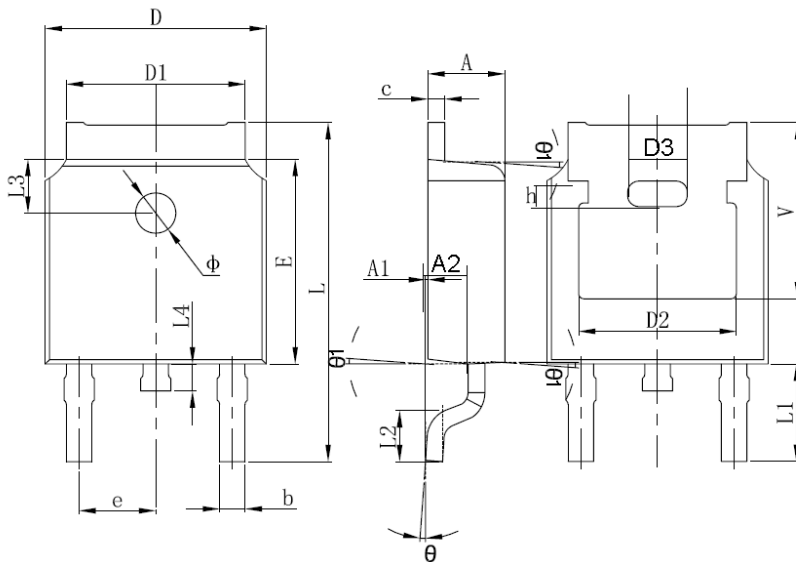
- Switching Power Supply
- Power Switching Circuits
- General Purpose

Features:

- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



Mechanical Dimensions (In mm/Inches):



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.380	0.087	0.094
A1	0.000	0.100	0.000	0.004
b	0.710	0.810	0.028	0.032
c	0.460	0.560	0.018	0.022
D	6.500	6.700	0.256	0.264
D1	5.130	5.460	0.202	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.800	10.400	0.386	0.409
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
phi	1.100	1.300	0.043	0.051
theta	0°	8°	0°	8°
A2	0.910	1.110	0.036	0.044
V	5.350 REF.		0.211 REF.	
D3	1.778 REF.		0.070 REF.	
h	0.762 REF.		0.030 REF.	
theta1	7°		7°	

DPAK



SDURD330

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Marking Diagram:



Where XXXXX is YYWWL

SDUR	= Device Type
D	= Package type
3	= Forward Current (3A)
30	= Reverse Voltage (300V)
SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
SDURD330	DPAK (Pb-Free)	2500pcs/ reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

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- China - Germany - Korea - Singapore - United States •
 - <http://www.smc-diodes.com> - sales@smc-diodes.com •



Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	300	V
Average Forward Current	$I_{O(AV)}$	50% duty cycle @ $T_c=90^{\circ}C$, rectangular wave form	3	A
Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	8.3ms, Half Sine pulse	75	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop (Per leg)*	V_{F1}	@ $I_F=3A$, Pulse, $T_J = 25^{\circ}C$	1.15	V
	V_{F2}	@ $I_F=3A$, Pulse, $T_J = 125^{\circ}C$	0.92	
Reverse Current (Per leg)*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	5	μA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^{\circ}C$	500	μA
Reverse Recovery Time (Per leg)*	t_{rr}	$I_F=500mA$, $I_R=1A$, and $I_{rm}=250mA$	35	ns

* Pulse width < 300 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	$^{\circ}C$
Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}C$
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	2	$^{\circ}C/W$
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JC}$	DC operation	49	$^{\circ}C/W$
Approximate Weight	wt	-	0.39	g
Case Style	DPAK			

Note1. Rating applies when surface mounted on a 700 mm², 1 oz Cu heat spreader.



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