Technical Data
Data Sheet N1260, Rev. -

Green Products

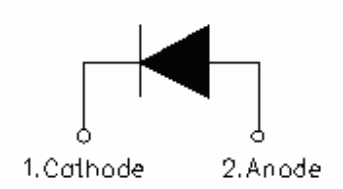
SDUR3020W ULTRAFAST PLASTIC RECTIFIER

Applications:

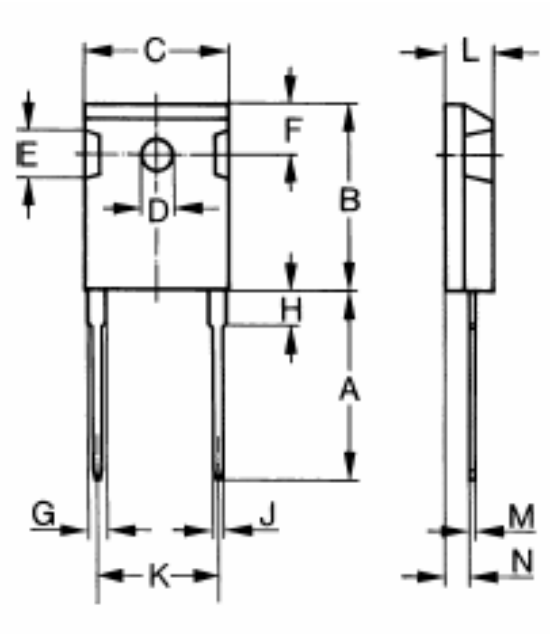
- **Antiparallel diode for high frequency switching devices**
- **Anti saturation diode**
- **Snubber diode**
- **Free wheeling diode in converters and motor control circuits**
- **Rectifiers in switch mode power supplies (SMPS)**
- **Inductive heating and melting**
- **Uninterruptible power supplies (UPS)**
- **Ultrasonic cleaners and welders**

Features:

- **Utra-Fast Switching**
- **High Current Capability**
- **Low Reverse Leakage Current**
- **High Surge Current Capability**
- **Plastic Material has UL Flammability Classification 94V-O**
- **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



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	19.81	20.32	0.780	0.800
B	20.80	21.46	0.819	0.845
C	15.75	16.26	0.610	0.640
D	3.55	3.65	0.140	0.144
E	4.32	5.49	0.170	0.216
F	5.4	6.2	0.212	0.244
G	1.65	2.13	0.065	0.084
H	-	4.5	-	0.177
J	1.0	1.4	0.040	0.055
K	10.8	11.0	0.426	0.433
L	4.7	5.3	0.185	0.209
M	0.4	0.8	0.016	0.031
N	2.2	2.54	0.087	0.102

TO-247AC

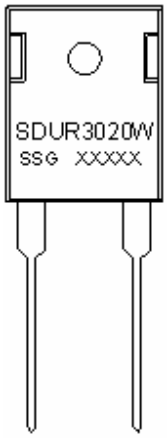
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SDUR3020W

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Marking Diagram:



Where XXXXX is YYWWL

SDUR = Device Type
30 = Forward Current (30A)
20 = Reverse Voltage (200V)
W = Configuration
SSG = SSG
YY = Year
WW = Week
L = Lot Number

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

Ordering Information:

Device	Package	Shipping
SDUR3020W	TO-247AC (Pb-Free)	30 pcs / tube

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

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	200	V
Average Rectified Forward Current	$I_{F\ (AV)}$	Rated Vr ,@Tc=105℃	30	A
Max. Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	8.3ms, Half Sine pulse	250	A

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• FAX (86) 25-87123900 • World Wide Web Site - http://www.sangdest.com.cn • E-Mail Address - sales@ sangdest.com.cn •

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	V_{F1}	@ 30A, Pulse, T_J = 25°C	1.20	V
Max. Reverse Current*	I_{R1}	@V_R = rated V_R T_J = 25°C	10	μA
	I_{R2}	@V_R = rated V_R T_J = 150°C	200	uA
Max. Reverse Recovery Time	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
Max. Junction Temperature	T_J	-	-55 to +150	°C
Max. Storage Temperature	T_{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	0.9	K/W
Approximate Weight	wt	-	6.7	g
Case Style	TO-247AC			

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Typical Forward Characteristics

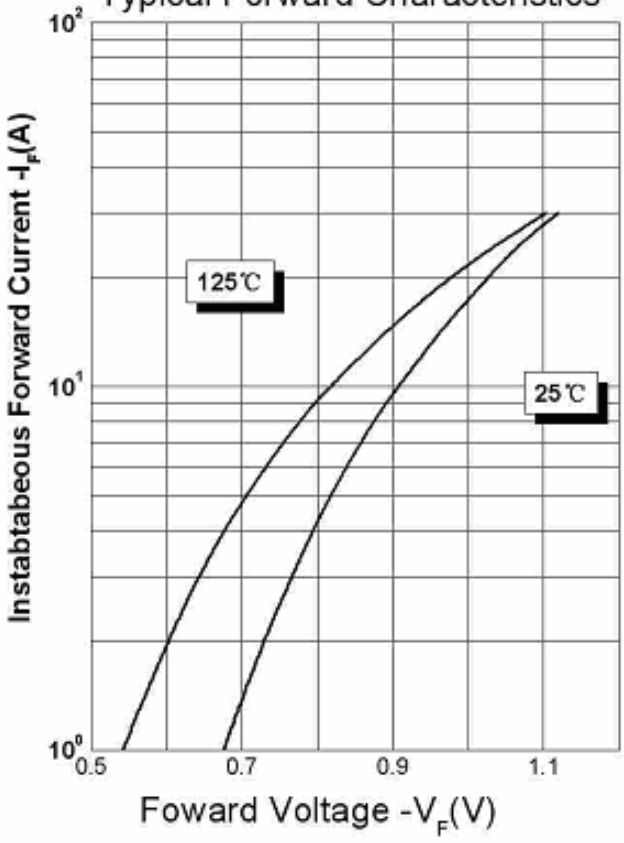


Figure 2
Typical Reverse Characteristics

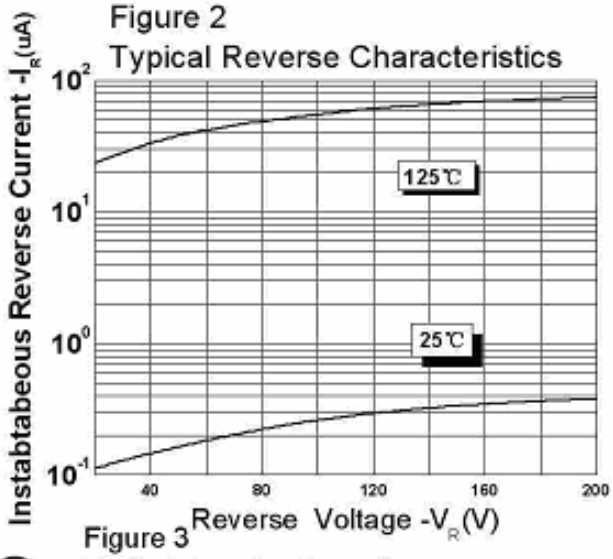
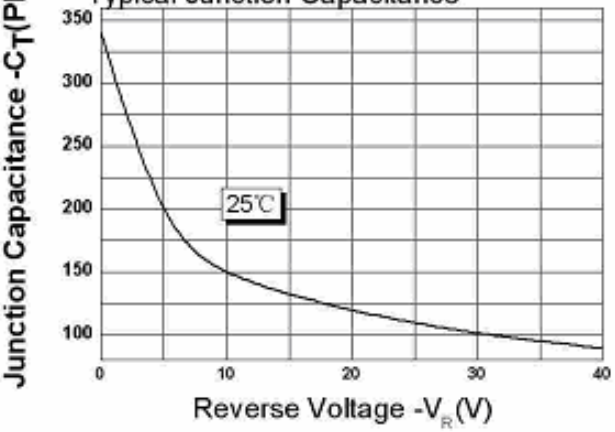


Figure 3
Typical Junction Capacitance



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