Technical Data *Green Products*

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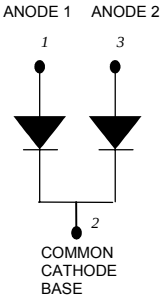
SDUR8040WT ULTRAFAST PLASTIC RECTIFIER

Applications:

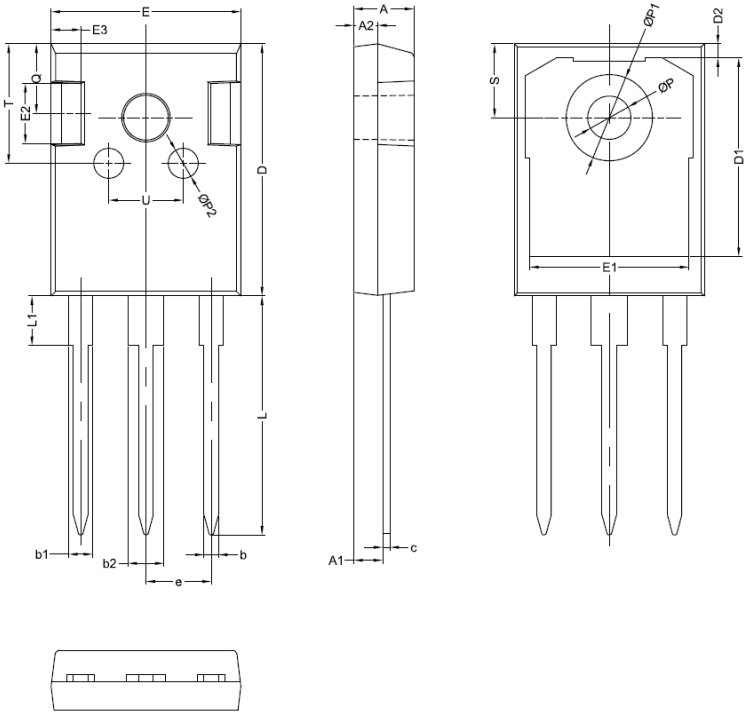
- **Antiparallel diode for high frequency switching devices**
- **Anti saturation diode**
- **Snubber diode**
- **Free wheeling diode in converters and motor control circuits**
- **Rectifiers in switch mode power supplies (SMPS)**
- **Inductive heating and melting**
- **Uninterruptible power supplies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

Features:

- **Ultra-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



SYMBOL	MIN.	TYP.	MAX.
A	4.80	5.00	5.20
A1	2.21	2.41	2.61
A2	1.90	2.00	2.10
b	1.10	1.20	1.35
b1		2.00	
b2		3.00	
c	0.55	0.60	0.75
D	20.80	21.00	21.20
D1		16.55	
D2		1.20	
E	15.60	15.80	16.00
E1		13.30	
E2		5.00	
E3		2.50	
e		5.44	
L	19.42	19.92	20.42
L1		4.13	
P	3.50	3.60	3.70
P1			7.40
P2		2.50	
Q		5.80	
S	6.05	6.15	6.25
T		10.00	
U		6.20	

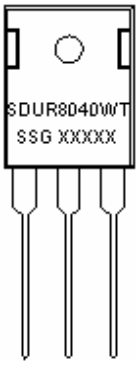
TO-247AD(HD)

SDUR8040WT

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Marking Diagram:



Where XXXXX is YYWWL

SDUR	= Device Type
80	= Forward Current (80A)
40	= Reverse Voltage (400V)
WT	= Configuration
SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information:

Device	Package	Shipping
SDUR8040WT	TO-247AD (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}	-	400	V
Average Forward Current	$I_{F\ (AV)}$	50% duty cycle @Tc=110°C, rectangular wave form	80	A
Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	8.3ms, Half Sine pulse	350	A

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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop* (Per leg)	V_{F1}	@ 40A, Pulse, T_J = 25°C	1.80	V
	V_{F2}	@ 40A, Pulse, T_J = 125°C	1.50	V
Reverse Current* (Per leg)	I_{R1}	@V_R = rated V_R T_J = 25°C	10	μA
	I_{R2}	@V_R = V_R T_J = 125°C	150	μA
Reverse Recovery Time	t_{rr}	I_F=500mA, I_R=1A,and I_{rm}=250mA	45	ns

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

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	0.8	°C/W
Approximate Weight	wt	-	6.28	g
Case Style	TO-247AD			

SDUR8040WT

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