

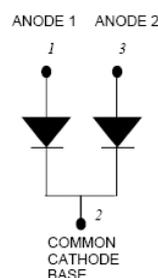
SDUR3020WT ULTRAFAST PLASTIC RECTIFIER

Applications:

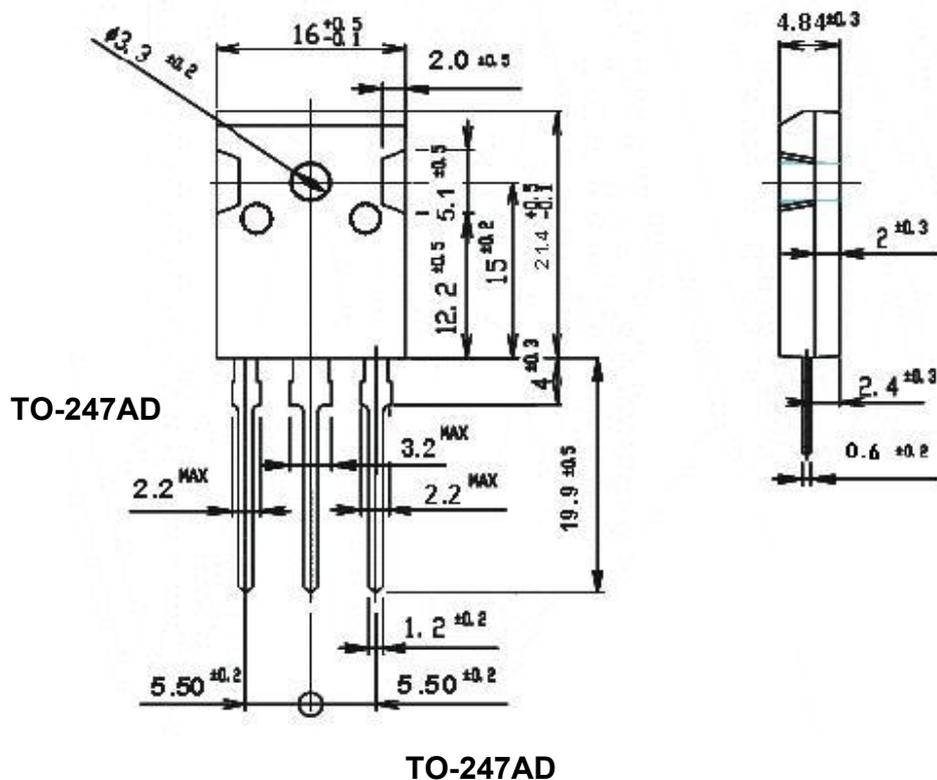
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners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

Features:

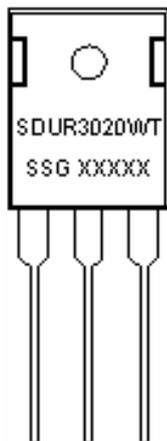
- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



Mechanical Dimensions: In mm / Inches



Marking Diagram:



Where XXXXX is YYWWL

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

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

Ordering Information:

Device	Package	Shipping
SDUR3020WT	TO-247AD (Pb-Free)	30pcs/ 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 V_r , @ $T_c=140^\circ\text{C}$	30	A
Max. Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	8.3ms, Half Sine pulse @ $T_J = 25^\circ\text{C}$	110	A

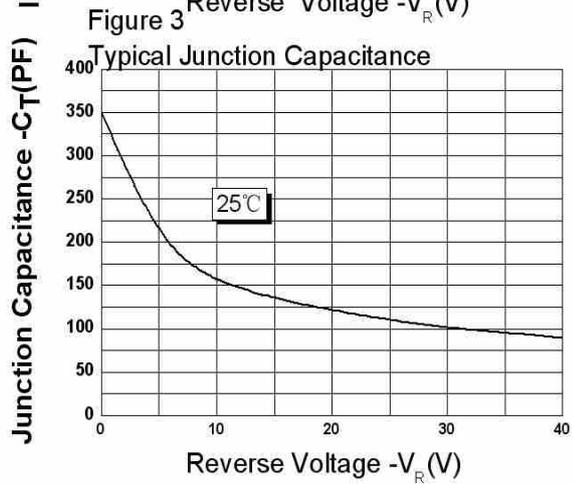
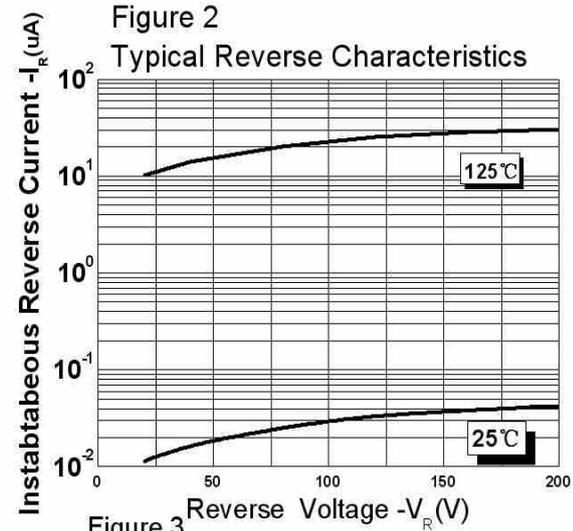
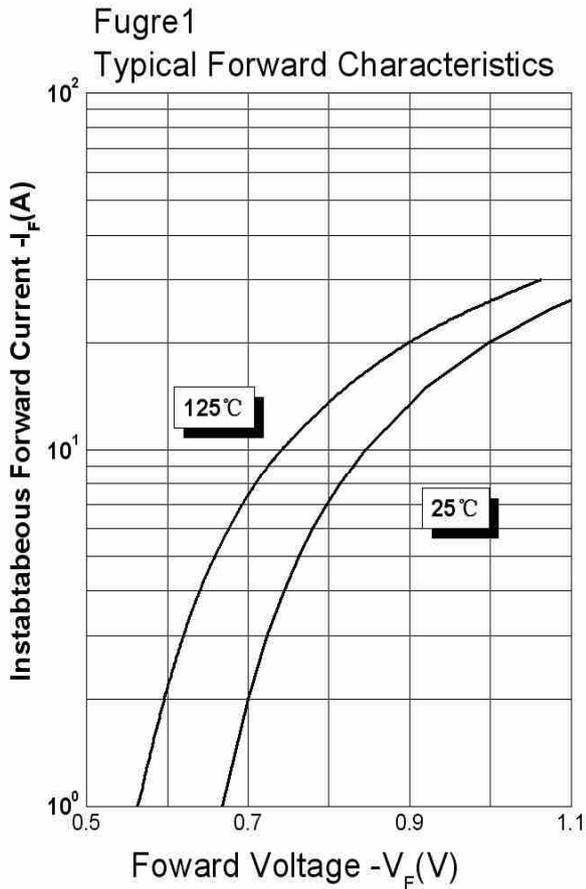
Electrical Characteristics:

Characteristics	Symbol	Condition	MIN.	TYP.	Max.	Units
Breakdown voltage, Blocking voltage	V_{BR} V_R	$I_R = 50\mu A$	200	-	-	V
Max. Forward Voltage Drop*	V_{F1}	@ 15A, Pulse, $T_J = 25^\circ C$	-	-	1.05	V
	V_{F2}	@ 15A, Pulse, $T_J = 150^\circ C$	-	-	0.85	V
Max. Reverse Current*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ C$	-	-	10	μA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ C$	-	-	500	μA
Max. Reverse Recovery Time	t_{rr1}	$I_F = 500mA, I_R = 1A, \text{ and}$ $I_m = 250mA$	-	-	35	ns

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

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	MIN.	TYP.	Max.	Units
Max. Junction Temperature	T_J	-	-65	-	150	$^\circ C$
Max. Storage Temperature	T_{stg}	-	-65	-	150	$^\circ C$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	-	1.6	-	$^\circ C/W$
Approximate Weight	wt	-	-	6.7	-	g
Case Style	TO-247AD					



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