

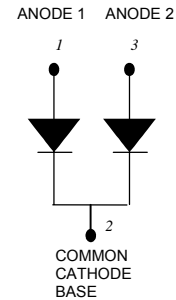
SDUR2040WT ULTRAFAST PLASTIC RECTIFIER

Applications:

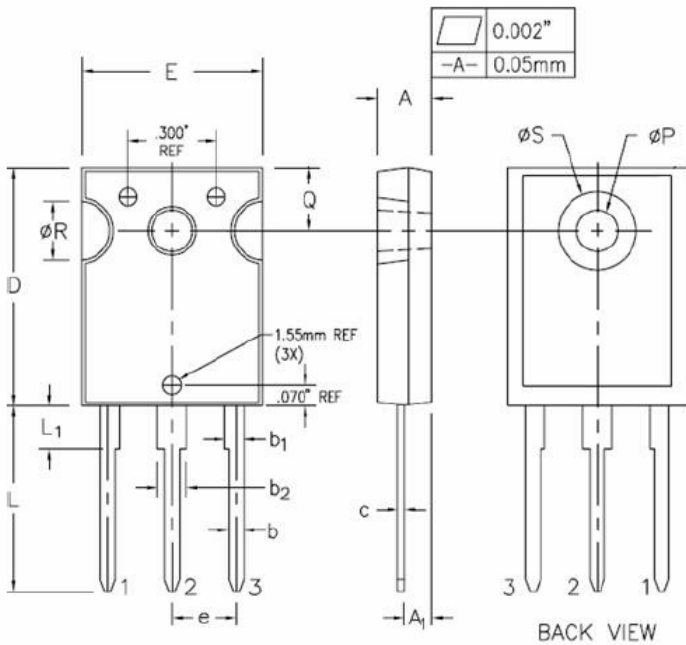
- Switching Power Supply
- Power Switching Circuits
- General Purpose

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

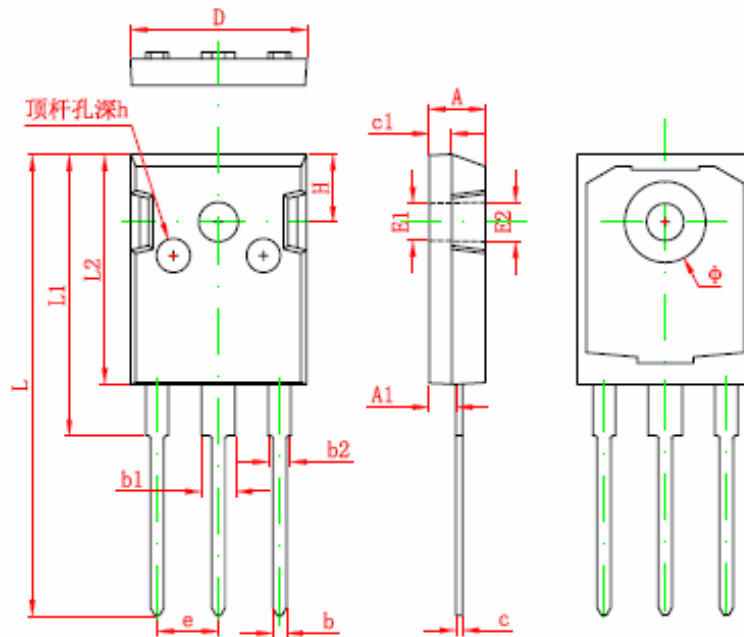


Mechanical Dimensions: In mm / Inches



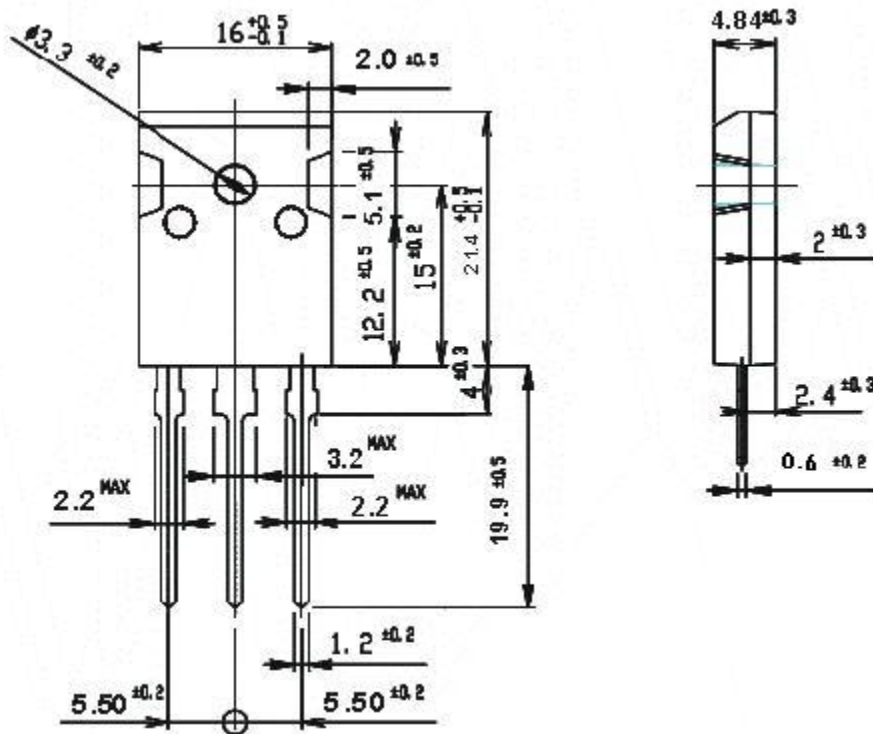
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.58	4.82	0.180	0.190
A1	2.29	2.66	0.090	0.105
b	1.17	1.35	0.046	0.053
b1	1.53	1.77	0.060	0.070
b2	2.42	2.66	0.095	0.105
c	0.51	0.71	0.020	0.028
D	20.32	20.82	0.800	0.820
E	15.37	15.87	0.605	0.625
e	5.56 BSC.		0.219BSC	
L	15.75	16.25	0.620	0.640
L1	3.69	3.93	0.145	0.155
ØP	3.51	3.65	0.138	0.144
Q	5.34	5.58	0.210	0.220
ØR	4.96	5.20	0.195	0.205
ØS	6.61	6.85	0.260	0.270

OPTION 1 (MX)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.850	5.150	0.191	0.200
A1	2.200	2.600	0.087	0.102
b	1.000	1.400	0.039	0.055
b1	2.800	3.200	0.110	0.126
b2	1.800	2.200	0.071	0.087
c	0.500	0.700	0.020	0.028
c1	1.900	2.100	0.075	0.083
D	15.450	15.750	0.608	0.620
E1	3.500 REF		0.138 REF	
E2	3.600 REF		0.142 REF	
L	40.900	41.300	1.610	1.626
L1	24.800	25.100	0.976	0.988
L2	20.300	20.600	0.799	0.811
Φ	7.100	7.300	0.280	0.287
e	5.450 TYP		0.215 TYP	
H	5.980 REF		0.235 REF	
h	0.000	0.300	0.000	0.012

OPTION 2 (CJ)



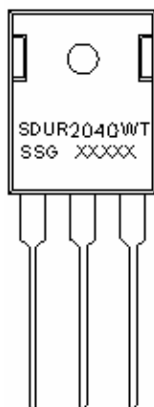
OPTION 3 (SR)

TO-247AD

Technical Data
Data Sheet N0378, Rev. -

Green Products

Marking Diagram:



Where XXXXX is YYWWL

SDUR = Device Type
20 = Forward Current (20A)
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
SDUR2040WT	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
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @ $T_c=100^{\circ}C$, rectangular wave form	20	A
Max. Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	8.3ms, Half Sine pulse	125	A

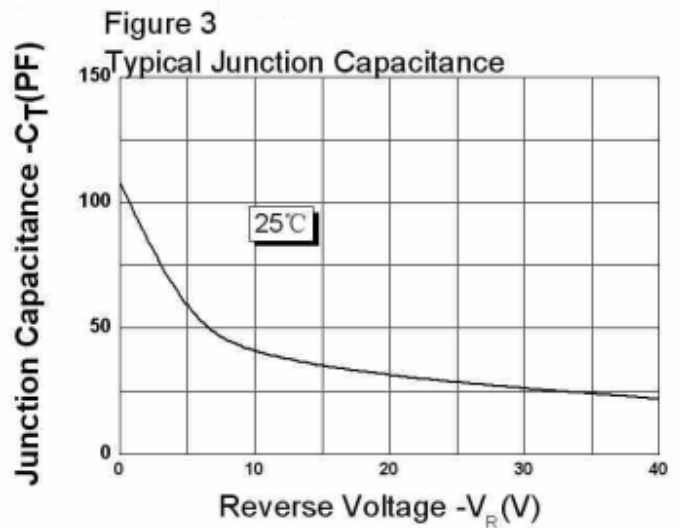
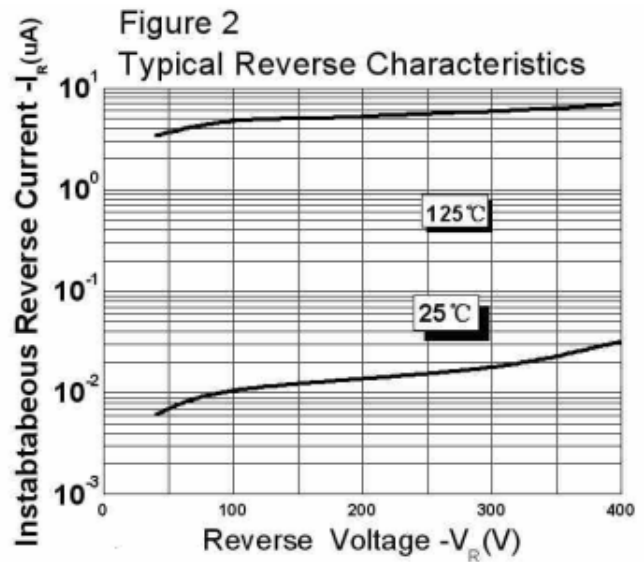
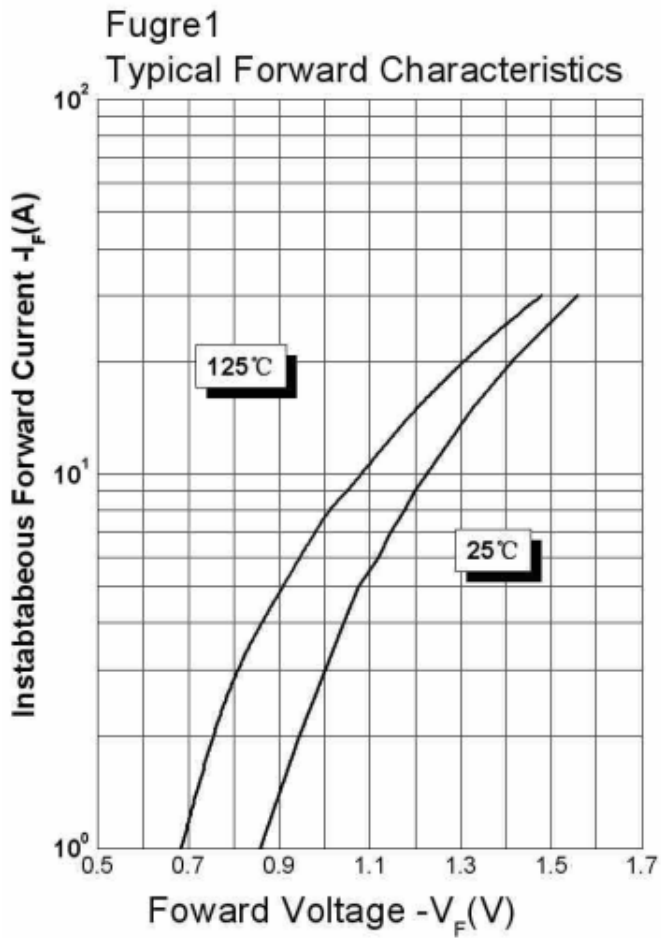
Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (Per leg) *	V_{F1}	@ 10A, Pulse, $T_J = 25^\circ\text{C}$	1.5	V
	V_{F2}	@ 10A, Pulse, $T_J = 100^\circ\text{C}$	1.3	V
Max. Reverse Current*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	10	μA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$	500	μA
Max. Reverse Recovery Time	t_{rr}	$I_F=500\text{mA}$, $I_R=1\text{A}$, and $I_{rm}=250\text{mA}$	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	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	5.0	$^\circ\text{C/W}$
Approximate Weight	wt	-	6.7	g
Case Style	TO-247AD			



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