

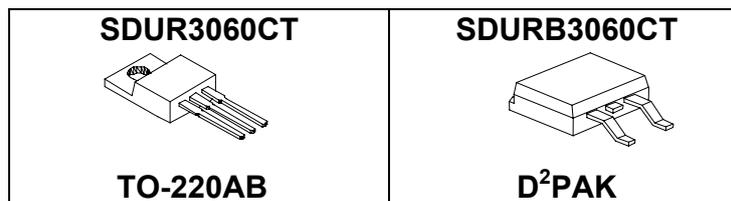
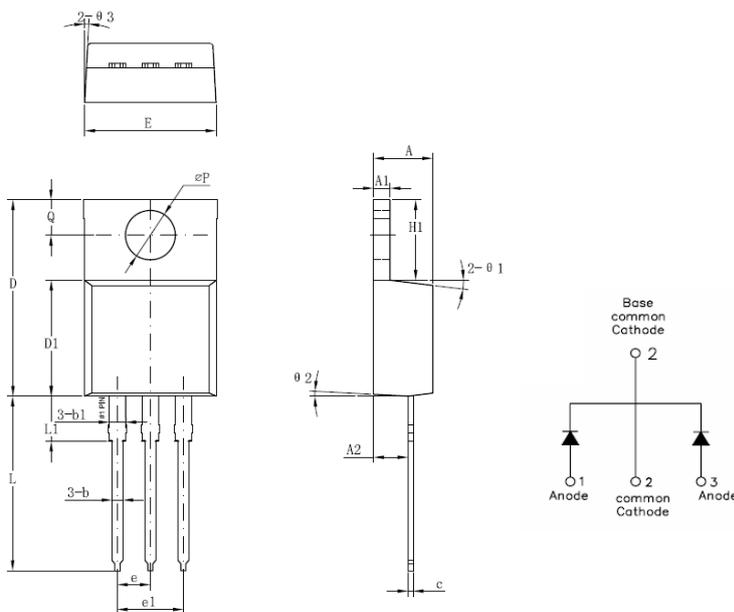
## SDUR/B3060CT ULTRAFAST PLASTIC RECTIFIER

**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:**

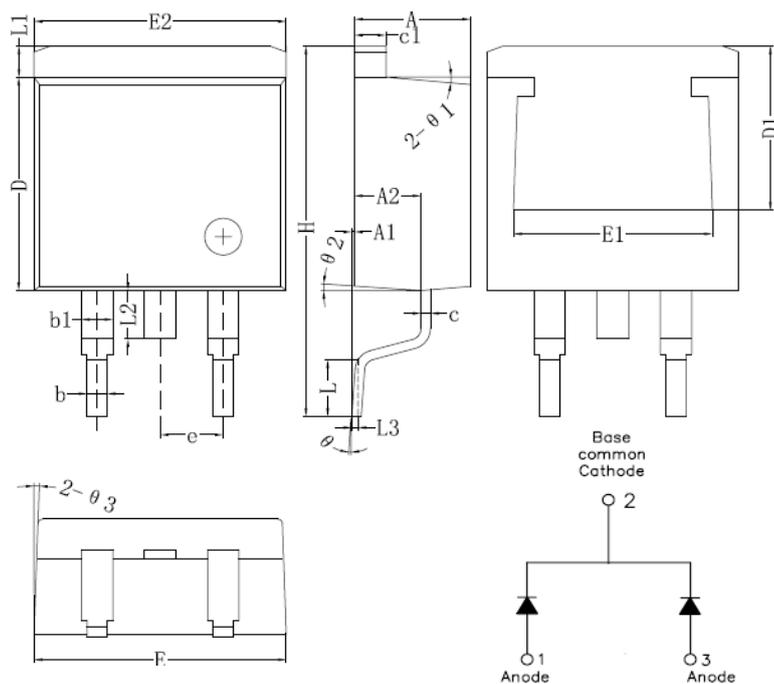
- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request


**Mechanical Dimensions: In Inches / mm**


Symbol	Dimensions in millimeters		
	Min	Typical	Max
A	4.42	4.57	4.72
A1	1.17	1.27	1.37
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
D	14.94	15.24	15.54
D1	8.85	9.00	9.15
E	10.01	10.16	10.31
e		2.54	
e1		5.06	
H1	6.04	6.24	6.44
L	12.7	13.56	13.78
L1		3.5	
ØP	3.74	3.84	4.04
Q	2.54	2.74	2.94
Ø1		7°	
Ø2		3°	
Ø3		4°	

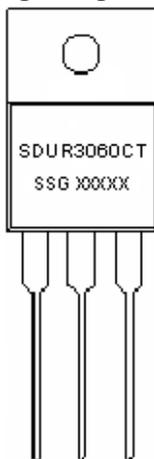
**TO-220AB**

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

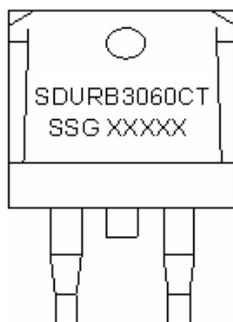


Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
A	4.55	4.70	4.85
A1	0	0.10	0.25
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
c1	1.17	1.27	1.37
D	8.55	8.70	8.85
D1	6.40		
E	10.01	10.16	10.31
E1	7.6		
E2	9.98	10.08	10.18
e		2.54	
H	14.6	15.1	15.6
L	2.00	2.30	2.70
L1	1.17	1.27	1.40
L2			2.20
L3		0.25BSC	
e	0	-	8°
e1		5°	
e2		4°	
e3		4°	

**D² PAK**

**Marking Diagram:**


SDUR3060CT



SDURB3060CT

Where XXXXX is YYWWL

SDUR	= Device Type
B	= Package type
30	= Forward Current (30A)
60	= Reverse Voltage (600V)
CT	= Configuration
SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number

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

**Ordering Information:**

Device	Package	Shipping
SDUR3060CT	TO-220AB (Pb-Free)	50pcs / tube
SDURB3060CT	D <sup>2</sup> PAK (Pb-Free)	800pcs/ reel

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	$V_{RWM}$	-	600	V
Average Rectified Forward Current (per device)	$I_{F(AV)}$	Rated $V_r$ , @ $T_c=105^\circ\text{C}$	30	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	$I_{FSM}$	8.3ms, Half Sine pulse	110	A

**Electrical Characteristics:**

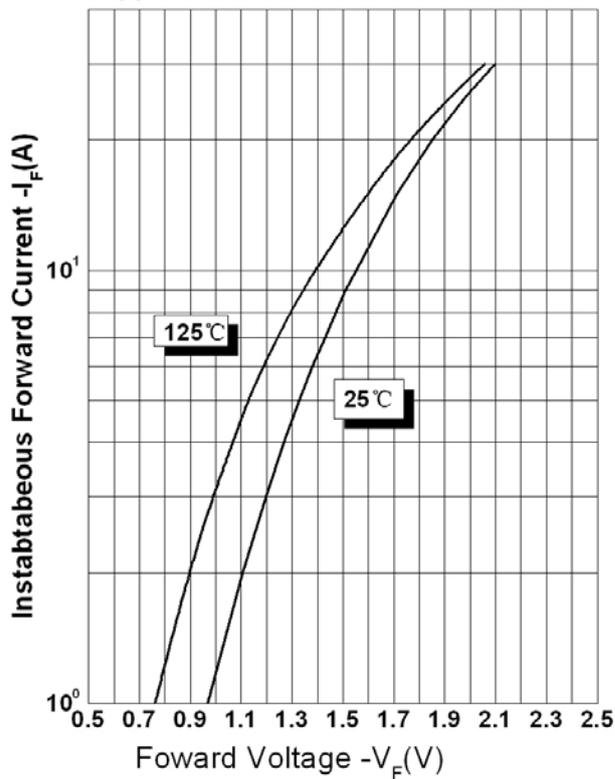
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(per leg)*	V <sub>F1</sub>	@ 15A, Pulse, T <sub>J</sub> = 25°C	1.71	2.03	V
	V <sub>F2</sub>	@ 15A, Pulse, T <sub>J</sub> = 125°C	1.59	-	V
Reverse Current(per leg)*	I <sub>R1</sub>	@V <sub>R</sub> = rated V <sub>R</sub> T <sub>J</sub> = 25°C	0.54	100	μA
	I <sub>R2</sub>	@V <sub>R</sub> = rated V <sub>R</sub> T <sub>J</sub> = 125°C	277	-	uA
Reverse Recovery Time (per leg)	t <sub>rr</sub>	I <sub>F</sub> =500mA, I <sub>R</sub> =1A, and I <sub>rm</sub> =250mA	-	50	ns

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

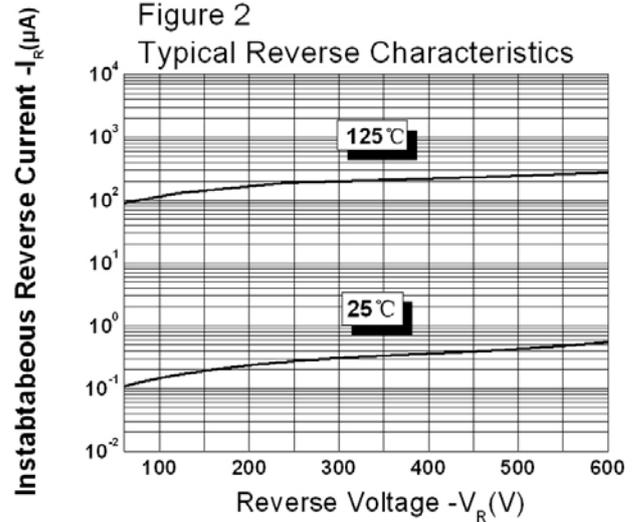
**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T <sub>J</sub>	-	-55 to +150	°C
Storage Temperature	T <sub>stg</sub>	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	R <sub>θJC</sub>	DC operation	1.6	°C/W
Approximate Weight	wt	-	2/1.85	g
Case Style	TO-220AB\D <sup>2</sup> PAK			

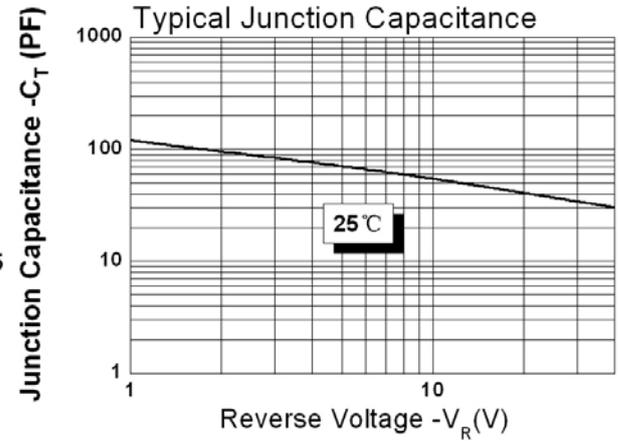
**Figure 1**  
Typical Forward Characteristics



**Figure 2**  
Typical Reverse Characteristics



**Figure 3**  
Typical Junction Capacitance





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