



Technical Data
Data Sheet N1266, Rev. -

Green Products

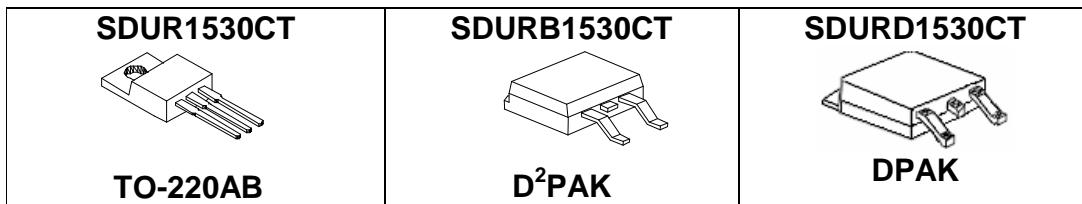
SDUR/B/D1530CT ULTRAFAST PLASTIC RECTIFIER

Applications:

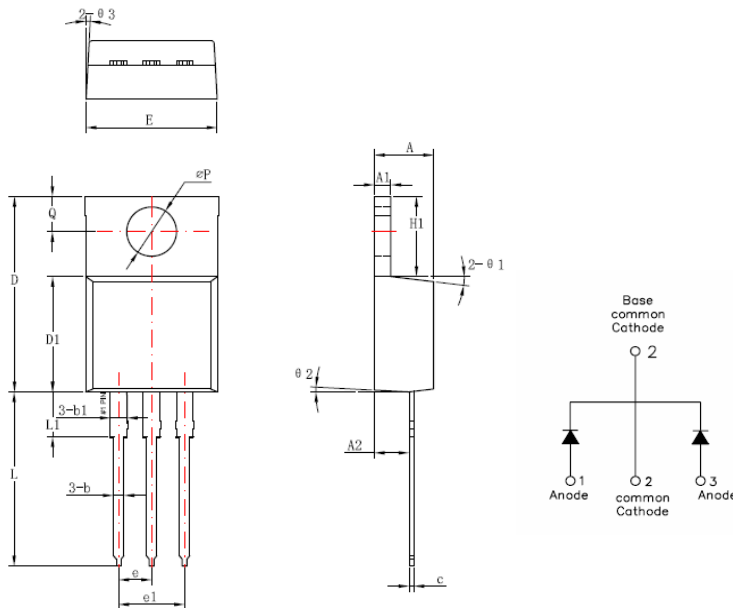
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners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

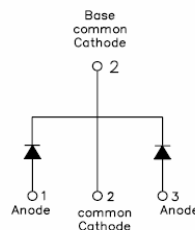


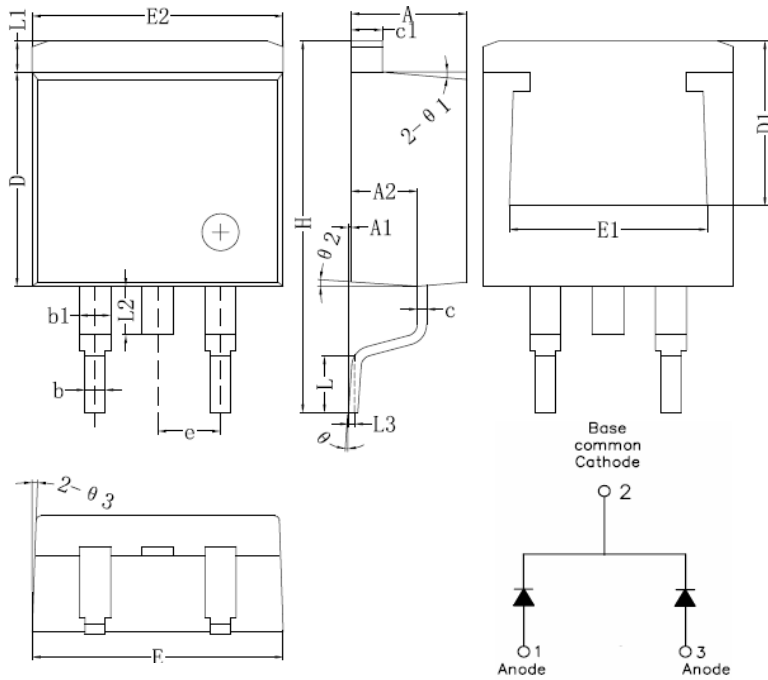
Mechanical Dimensions: In Inches / mm



TO-220AB

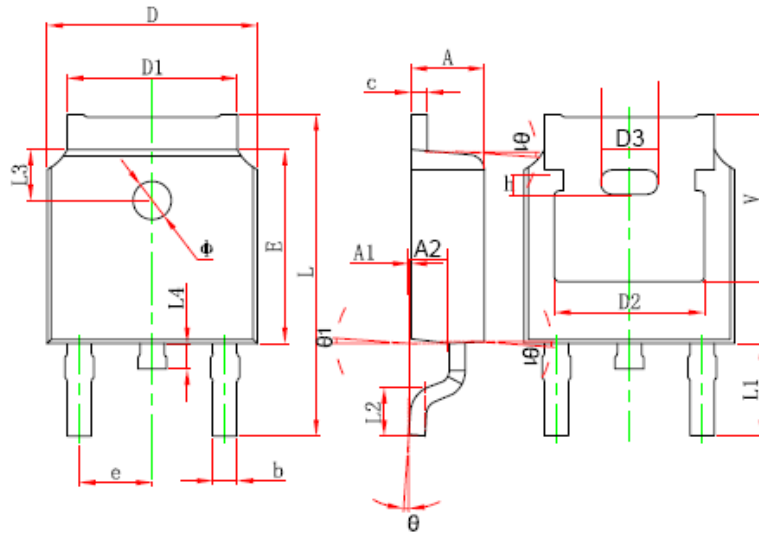
Symbol	Dimensions in millimeters		
	Min	Typical	Max
A	4.42	4.57	4.72
A1	1.17	1.27	1.37
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
D	14.94	15.24	15.54
D1	8.85	9.00	9.15
E	10.01	10.16	10.31
e		2.54	
e1		5.06	
H1	6.04	6.24	6.44
L	12.7	13.56	13.78
L1		3.5	
ΦP	3.74	3.84	4.04
Q	2.54	2.74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



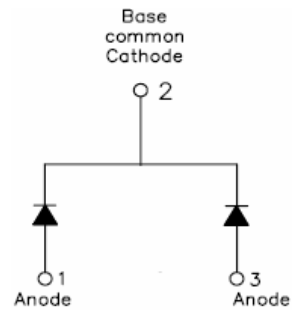


Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
A	4.55	4.70	4.85
A1	0	0.10	0.25
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
c1	1.17	1.27	1.37
D	8.55	8.70	8.85
D1	6.40		
E	10.01	10.16	10.31
E1	7.6		
E2	9.98	10.08	10.18
e		2.54	
H	14.6	15.1	15.6
L	2.00	2.30	2.70
L1	1.17	1.27	1.40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

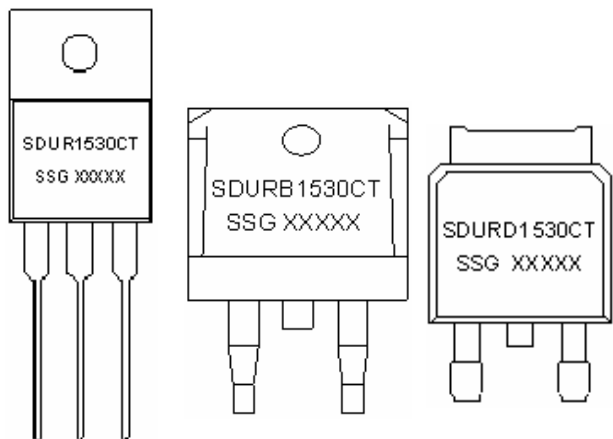
D² PAK



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.380	0.087	0.094
A1	0.000	0.100	0.000	0.004
b	0.710	0.810	0.028	0.032
c	0.460	0.560	0.018	0.022
D	6.500	6.700	0.256	0.264
D1	5.130	5.460	0.202	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.800	10.400	0.386	0.409
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
A2	0.910	1.110	0.036	0.044
V	5.350 REF.		0.211 REF.	
D3	1.778 REF.		0.070 REF.	
h	0.762 REF.		0.030 REF.	
θ1	7°		7°	



DPAK

Marking Diagram:


Where XXXXX is YYWWL

SDUR = Device Type
 B/D = Package type
 15 = Forward Current (15A)
 30 = Reverse Voltage (300V)
 CT = Configuration
 SSG = SSG
 YY = Year
 WW = Week
 L = Lot Number

SDUR1530CT SDURB1530CT SDURD1530CT

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

Ordering Information:

Device	Package	Shipping
SDUR1530CT	TO-220AB (Pb-Free)	50pcs / tube
SDURB1530CT	D ² PAK (Pb-Free)	800pcs/ reel
SDURD1530CT	DPAK (Pb-Free)	2500pcs/ 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}	-	300	V
Max. Average Forward	$I_{O(AV)}$	50Hz, Sine wave, $T_C=105^\circ\text{C}$	15	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3ms, Half Sine pulse	80	A

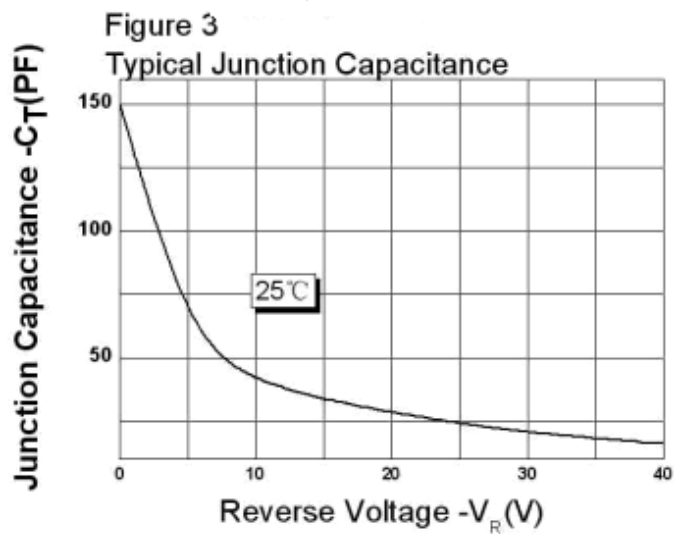
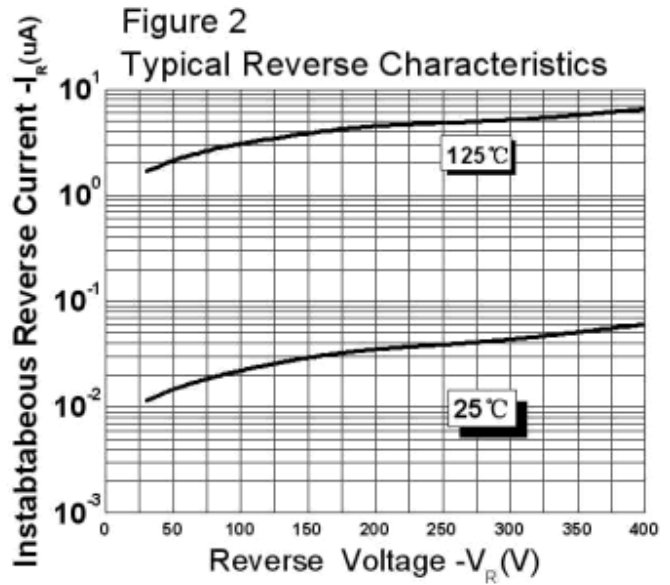
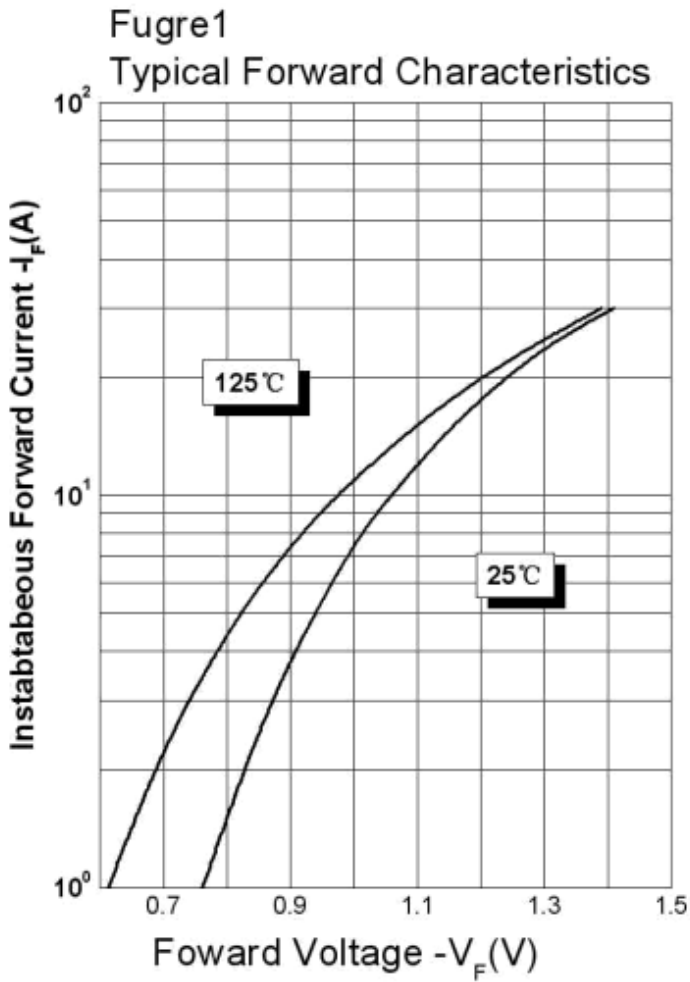
Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	V_{F1}	@8A, Pulse, $T_J = 25^\circ\text{C}$	1.3	V
	V_{F2}	@8A, Pulse, $T_J = 125^\circ\text{C}$	1.2	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 $I_{rm} = 250\text{mA}$	45	ns

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

Thermal-Mechanical Specifications:

Characteristics	Symbol	SDUR1530CT	SDURB1530CT	SDURD1530CT	Units
Junction Temperature	T_J	-55 to +150			$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150			$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case(per leg)*	$R_{\theta JC}$	2.3	2.3	1.7	K/W
Approximate Weight	wt	2.0	1.85	0.39	g
Case Style		TO-220AB/ D ² PAK/ DPAK			





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