

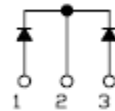
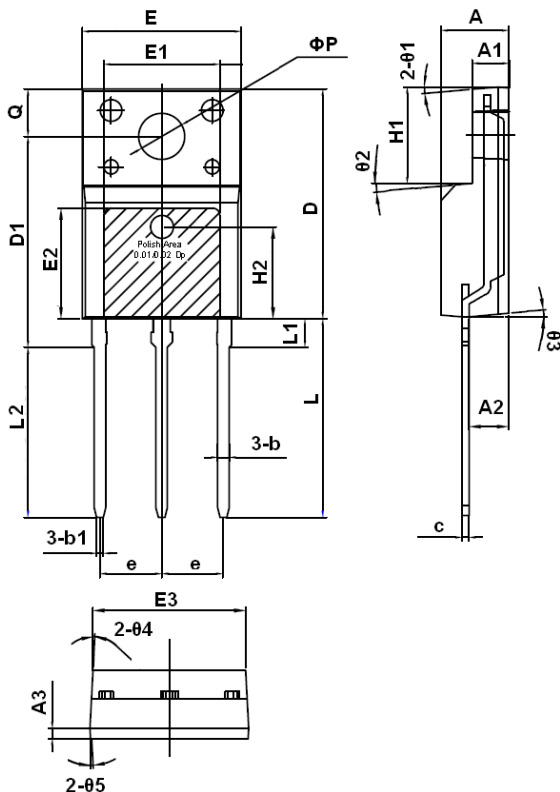
SDURL1060CT ULTRAFAST PLASTIC RECTIFIER

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:

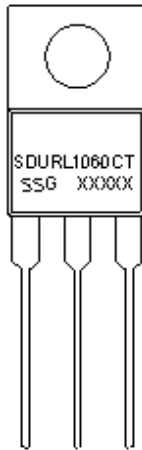
- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request


Mechanical Dimensions: In mm


SYMBOL	MIN.	TYP.	MAX.
A	4.50	4.70	4.90
A1	2.34	2.54	2.75
A2	2.65	-	-
b	0.70	0.80	0.90
b1	0.25	0.35	0.45
c	0.45	0.50	0.60
D	15.67	15.87	16.07
D1	14.37	14.57	14.77
E	10.80	11.00	11.20
E1	7.90	8.00	8.10
E2	7.55	7.65	7.75
E3	-	10.58	-
e	4.05	4.25	4.45
H1	6.48	6.68	6.88
H2	-	6.35	-
L	13.58	13.78	13.98
L1	1.80	2.00	2.20
L2	11.48	11.78	12.08
ΦP	3.08	3.18	3.28
Q	3.20	3.30	3.40
$\theta 1$		5°	
$\theta 2$		5°	
$\theta 3$		5°	
$\theta 4$		3°	
$\theta 5$		3°	

TO-220SF

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

Marking Diagram:


Where XXXXX is YYWWL

SDUR	= Device Type
L	= Package Type
10	= Forward Current (10A)
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
SDURL1060CT	TO-220SF (Pb-Free)	45pcs / 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 Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	600	V
Average Forward Current (Per device)	$I_{F(AV)}$	50% duty cycle @ $T_c=100^\circ\text{C}$, rectangular wave form	10	A
Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	8.3ms, Half Sine pulse	60	A



Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop(Per leg)*	V _{F1}	@ 5A, Pulse, T _J = 25°C	1.55	V
	V _{F2}	@ 5A, Pulse, T _J = 125°C	1.45	V
Reverse Current(Per leg)*	I _{R1}	@V _R = rated V _R T _J = 25°C	5	μA
	I _{R2}	@V _R = rated V _R T _J = 125°C	500	μA
Reverse Recovery Time	t _{rr}	I _F =500mA, I _R =1A, and I _{rm} =250mA	50	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
Typical Thermal Resistance Junction to Case	R _{θJC}	DC operation	5.0	°C/W
Case Style	TO-220SF			

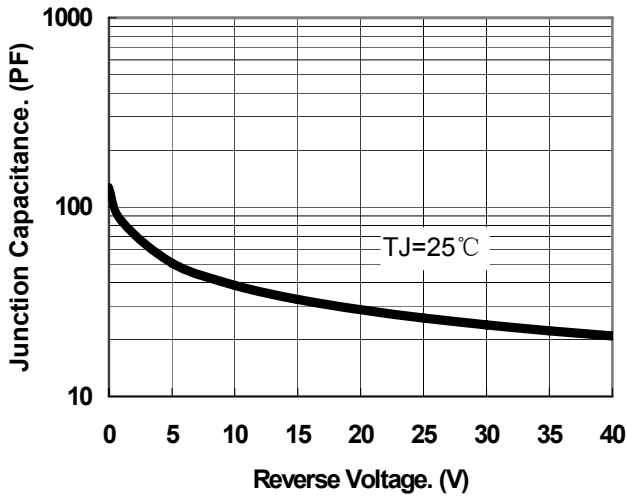


Fig.1-Typical Junction Capacitance

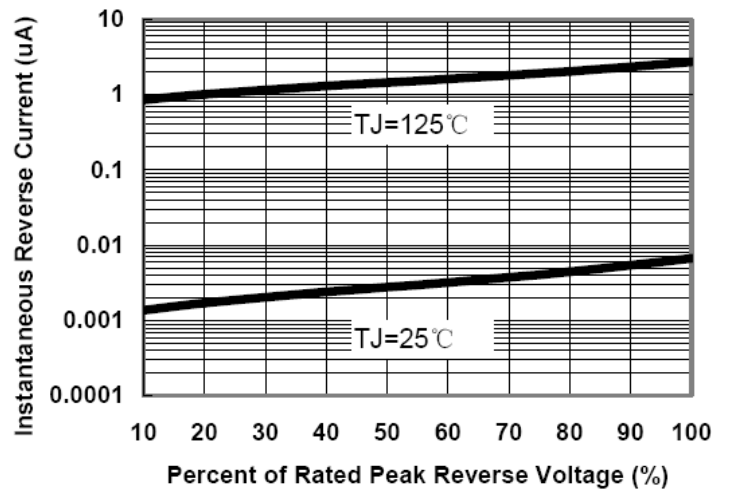


Fig.2-Typical Reverse Characteristics

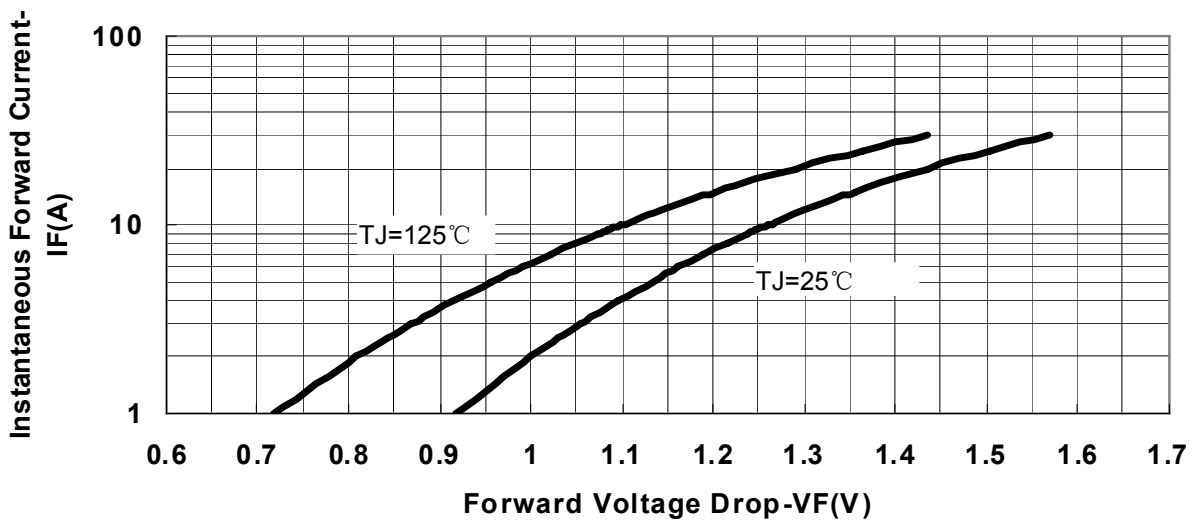


Fig.3-Typical Forward Voltage Drop Characteristics



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