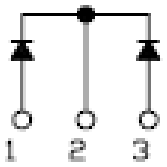
SDURF2060CT ULTRAFAST PLASTIC RECTIFIER

Applications:

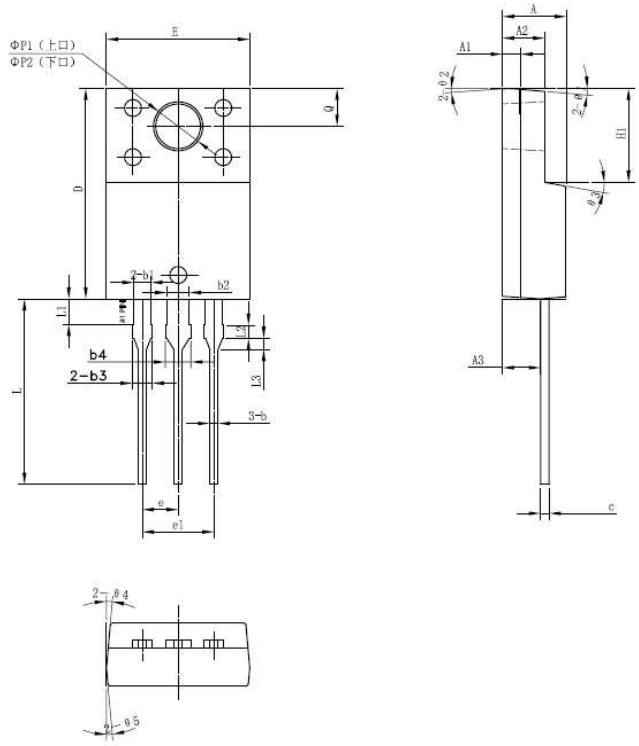
- **Antiparallel diode for high frequency switching devices**
- **Anti saturation diode**
- **Snubber diode**
- **Free wheeling diode in converters and motor control circuits**
- **Rectifiers in switch mode power supplies (SMPS)**
- **Inductive heating and melting**
- **Uninterruptible power supplies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

Features:



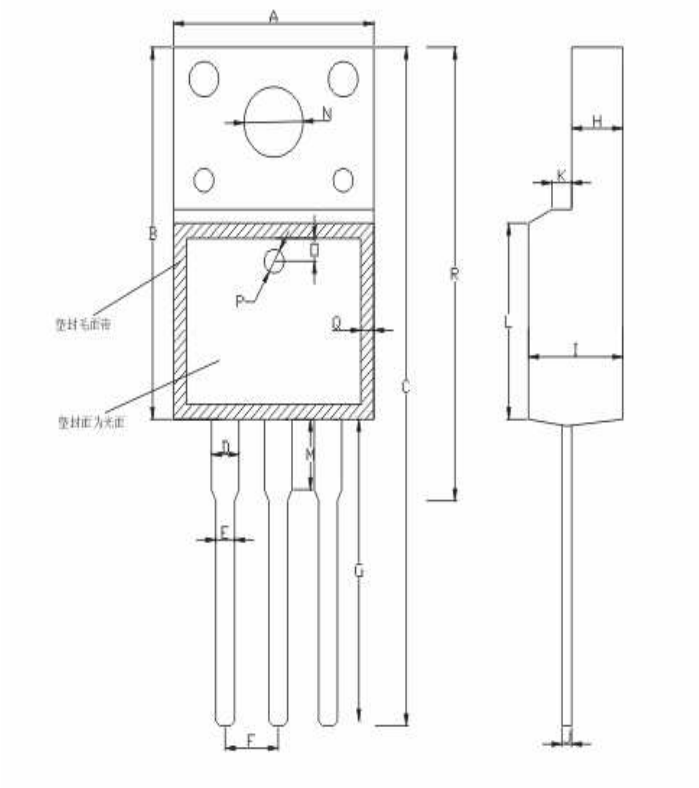
- **Ultra-Fast Switching**
- **High Current Capability**
- **Low Reverse Leakage Current**
- **High Surge Current Capability**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Mechanical Dimensions: In mm



SYMBOL	MIN.	TYP.	MAX.
A	4.30	4.50	4.70
A1	1.10	1.30	1.50
A2	2.80	3.00	3.20
A3	2.50	2.70	2.90
b	0.50	0.60	0.75
b1	1.10	1.20	1.35
b2	1.50	1.60	1.75
b3	1.20	1.30	1.45
b4	1.60	1.70	1.85
c	0.55	0.60	0.75
D	14.80	15.00	15.20
E	9.96	10.16	10.36
e		2.55	
e1		5.10	
H1	6.50	6.70	6.90
L	12.70	13.20	13.70
L1	1.60	1.80	2.00
L2	0.80	1.00	1.20
L3	0.60	0.80	1.00
ΦP1(上口)	3.30	3.50	3.70
ΦP2(下口)	2.99	3.19	3.39
Q	2.50	2.70	2.90
Θ1		5°	
Θ2		4°	
Θ3		10°	
Θ4		5°	
Θ5		5°	

OPTION 1(HD)



A:10.20 ± 0.50	B:15.90 ± 0.50	C:29.00 ± 1.00	D:1.24 ± 0.10
E:0.80 ± 0.10	F:2.54 ± 0.10	G:13.10 ± 1,0	H:2.55 ± 0.05
I:4.70 ± 0.05	J:0.50 ± 0.05	K:1.20 ± 0.20	L:8.00 ± 0.50
M:3.00 ± 0.50	N:3.20 ± 0.20	O:1,25 ± 0.05	P:1.5 ± 0.05
Q:1.0 ± 0.20	R:19.2 ± 1.0		

OPTION 2(SR)

ITO-220AB

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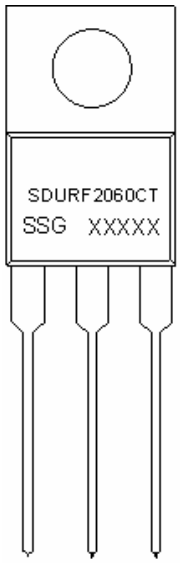
SDURF2060CT

Technical Data
Data Sheet N0412, Rev. A

Green Products

Marking Diagram:



Where XXXXX is YYWWL

SDUR = Device Type
F = Package type
20 = Forward Current (20A)
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
SDURF2060CT	ITO-220AB (Pb-Free)	50 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}	-	600	V
Average Forward Current	$I_{F\ (AV)}$	50% duty cycle @Tc=100℃, rectangular wave form	20	A
Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	8.3ms, Half Sine pulse	100	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_{F1}	@10A, Pulse, T_J = 25°C	2.2	V
	V_{F2}	@10A, Pulse, T_J = 125°C	2.0	V
Reverse Current*	I_{R1}	@V_R = rated V_R T_J = 25°C	10	μA
	I_{R2}	@V_R = 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
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	5.0	°C/W
Approximate Weight	wt	-	2	g
Case Style	ITO-220AB			

Figure 1. Typical Forward Voltage Drop vs. Forward Current

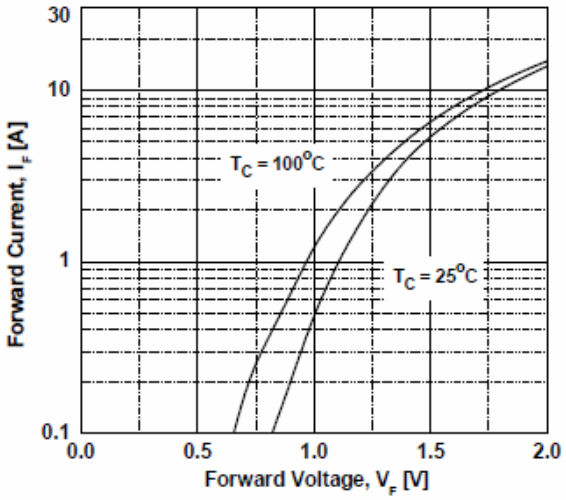


Figure 2. Typical Reverse Current vs. Reverse Voltage

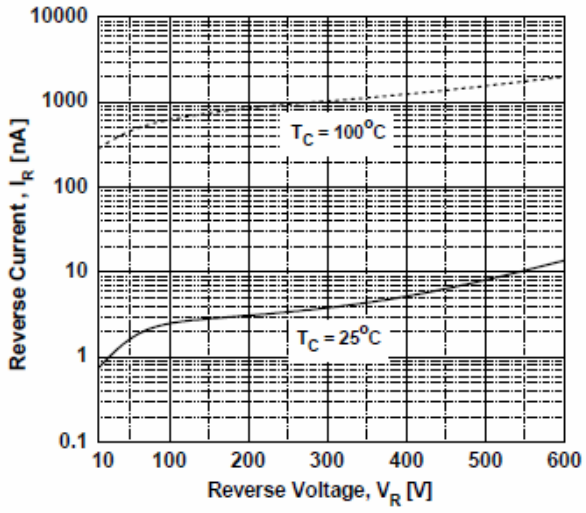


Figure 3. Typical Junction Capacitance

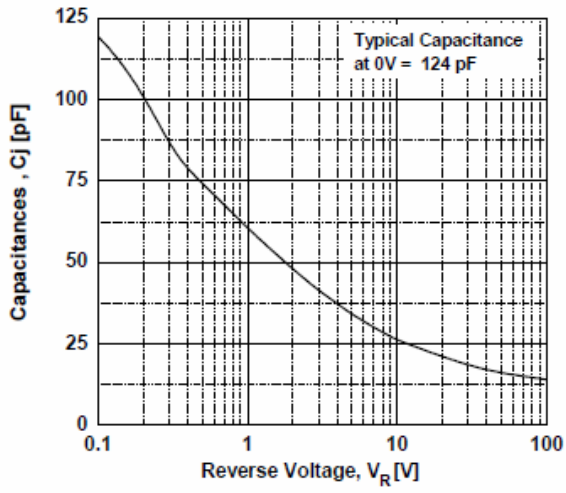
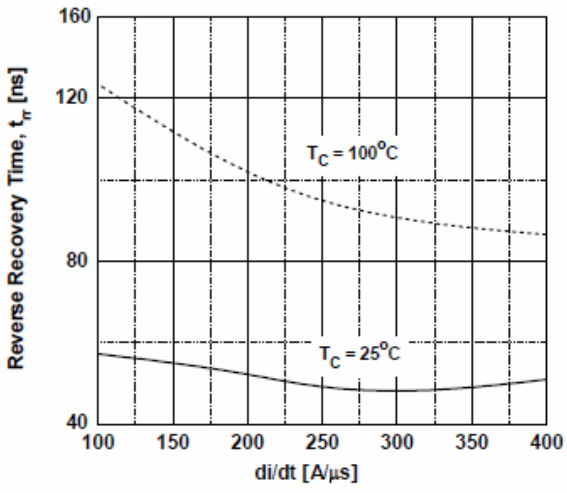


Figure 4. Typical Reverse Recovery Time vs. di/dt



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Technical Data *Green Products*
Data Sheet N0412, Rev. A

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