

Technical Data Data Sheet N1291, Rev. - **Green Products** 

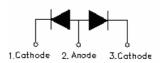
# SDURF3060CTR ULTRAFAST PLASTIC RECTIFIER

#### **Applications:**

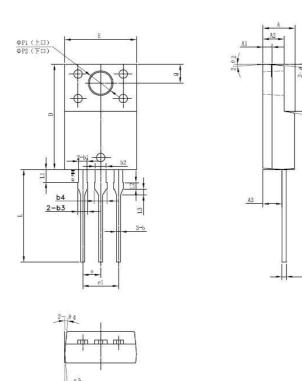
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners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



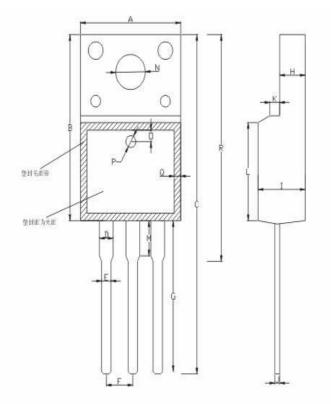
SYMBOL	MIN.	TYP.	MAX.
Α	4.30	4.50	4.70
A1	1.10	1.30	1.50
A2	2.80	3.00	3.20
A3	2.50	2.70	2.90
b	0.50	0.60	0.75
b1	1.10	1.20	1.35
b2	1.50	1.60	1.75
b3	1.20	1.30	1.45
b4	1.60	1.70	1.85
С	0.55	0.60	0.75
D	14.80	15.00	15.20
E	9.96	10.16	10.36
е		2.55	
e1		5.10	
H1	6.50	6.70	6.90
L	12.70	13.20	13.70
L1	1.60	1.80	2.00
L2	0.80	1.00	1.20
L3	0.60	0.80	1.00
ΦΡ1(上口)	3.30	3.50	3.70
<b>ΦΡ2(</b> 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**

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

## **OPTION 2(SR)**

### ITO-220AB

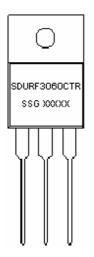
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### Marking Diagram:



Where XXXXX is YYWWL

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

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

### Ordering Information:

Device	Package	Shipping
	ITO-220AB	EQ pag/tube
SDURF3060CTR	(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 <sub>RWM</sub>	-	600	V
Average Rectified Forward Current (total device)	I <sub>F (AV)</sub>	Rated Vr ,@Tc=105℃	30	А
Max. Peak One Cycle Non- Repetitive Surge Current (Per leg)	I <sub>FSM</sub>	8.3ms, Half Sine pulse	110	А

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### **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage	V <sub>F1</sub>	@ 15A, Pulse, T <sub>J</sub> = 25°C	2.03	V
Drop(Per leg)*	V <sub>F2</sub>	@ 15A, Pulse, T <sub>J</sub> = 125°C	1.34	V
Max. Reverse Current*	I <sub>R1</sub>	$@V_R = rated V_R$ T <sub>J</sub> = 25°C	100	μA
	I <sub>R2</sub>	$@V_R = rated V_R$ T <sub>J</sub> = 125°C	500	uA
Max. Reverse Recovery Time	t <sub>rr</sub>	$I_F$ =500mA, $I_R$ =1A,and $I_{rm}$ =250mA	50	ns

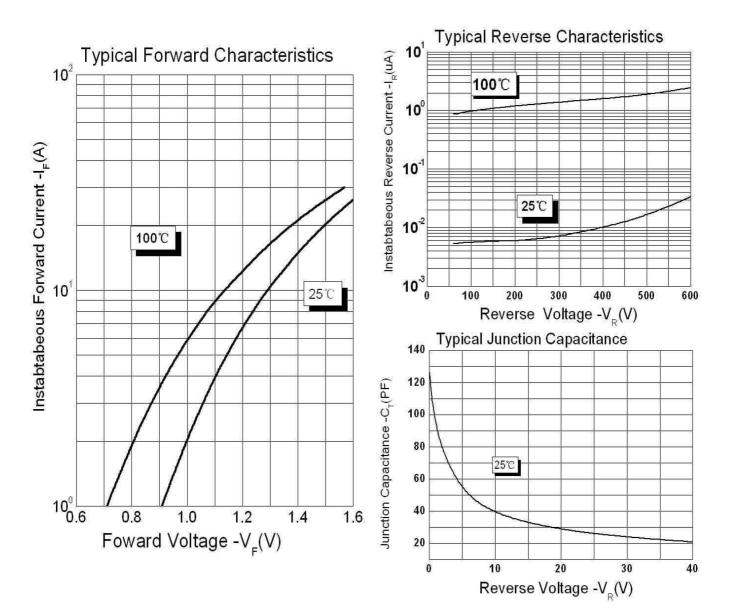
\* Pulse width < 300  $\mu s, \ duty \ cycle < 2\%$ 

### **Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	TJ	-	-55 to +150	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{ extsf{ heta}JC}$	DC operation	1.6	°C/W
Approximate Weight	wt	-	2	g
Case Style		ITO-220AB		



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