

**Green Products** 

# SDURF1620CT ULTRAFAST PLASTIC RECTIFIER

## **Applications:**

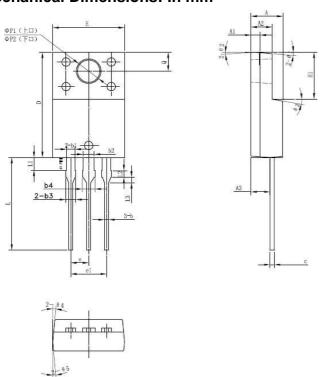
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- · Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners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

#### Features:

- Fully Molded Isolation
- Dual Diodes-Anode Common
- Ultra-Fast Recovery
- Low Forward Voltage Drop
- High Surge Capability
- 200 Volts thru 600 Volts Types Available
- 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**



MBOL   MIN.   TYP.		MAX.
4.30	4.50	4.70
1.10	1.30	1.50
2.80	3.00	3.20
2.50	2.70	2.90
0.50	0.60	0.75
1.10	1.20	1.35
1.50	1.60	1.75
1.20	1.30	1.45
1.60	1.70	1.85
0.55	0.60	0.75
14.80	15.00	15.20
9.96	10.16	10.36
	2.55	
	5.10	
6.50	6.70	6.90
	13.20	13.70
1.60	1.80	2.00
0.80	1.00	2.00 1.20 1.00
0.60	0.80	1.00
	3.50	3.70
2.99	3.19	3.39
2.50	2.70	2.90
	5°	
	4°	
	10°	
	5°	
	5°	
	4.30 1.10 2.80 2.50 0.50 1.10 1.50 1.20 1.60 0.55 14.80 9.96 6.50 12.70 1.60 0.80 0.60 3.30 2.99	4.30 4.50   1.10 1.30   2.80 3.00   2.50 2.70   0.50 0.60   1.10 1.20   1.50 1.60   1.20 1.30   1.60 1.70   0.55 0.60   14.80 15.00   9.96 10.16   2.55 5.10   6.50 6.70   12.70 13.20   1.60 1.80   0.80 1.00   0.60 0.80   3.30 3.50   2.99 3.19

**ITO-220AB** 

<sup>•</sup> Weiqi Street, Airport Development Zone, Jiangning District, Nanjing, China 211113 🗏 (86) 25-87123907 •

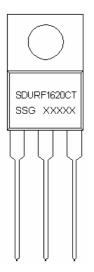
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# **Marking Diagram:**



Where XXXXX is YYWWL

SDUR = Device Type F = Package Type

16 = Forward Current (16A) 20 = Reverse Voltage (200V)

CT = Configuration

SSG = SSG YY = Year WW = Week L = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

## **Ordering Information:**

Device	Package	Shipping
SDURF1620CT	ITO-220AB	FOnce / tube
	(Pb-Free)	50pcs / 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	$V_{RWM}$	-	200	V
Max. Average Forward	I <sub>F (AV)</sub>	50% duty cycle @Tc=105℃, rectangular wave form	16	А
Max. Peak One Cycle Non- Repetitive Surge Current (Per leg)	I <sub>FSM</sub>	8.3ms, Half Sine pulse	80	А

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## **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@8A, Pulse, T <sub>J</sub> = 25°C	1.2	V
(Per leg)*	$V_{F2}$	@8A, Pulse, T <sub>J</sub> = 125°C	1.1	V
	I <sub>R1</sub>	@V <sub>R</sub> = rated V <sub>R</sub>	5	μA
Max. Reverse Current*		$T_J = 25^{\circ}C$		
	I <sub>R2</sub>	$@V_R = rated V_R$	500	μA
		$T_{J} = 125^{\circ}C$		
Max. Reverse Recovery Time	t <sub>rr</sub>	$I_F$ =500mA, $I_R$ =1A,and $I_m$ =250mA	35	ns

<sup>\*</sup> 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	$R_{\theta JC}$	DC operation	5.0	°C/W
Resistance Junction to Case				
Approximate Weight	wt	-	2	g
Case Style		ITO-220AB		

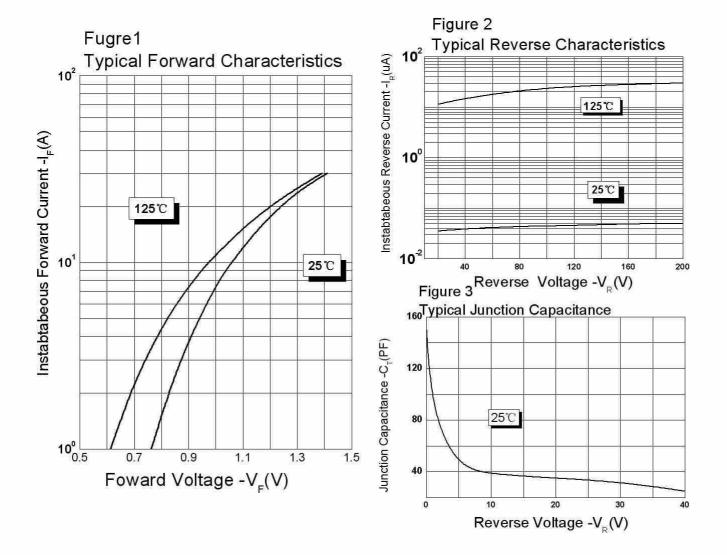
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## SDURF1620CT

## Technical Data Data Sheet N1272, Rev. -

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