

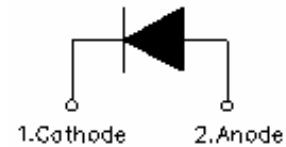
SDFR530 FAST RECOVERY RECTIFIER

Features:

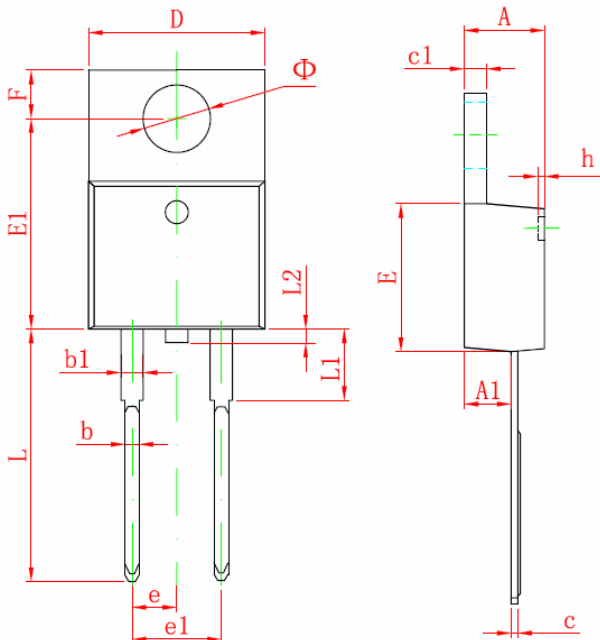
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Data:

- Case: Molded Plastic
- Terminals: Plated Leads Solderable Per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.6 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



Mechanical Dimensions (In mm):

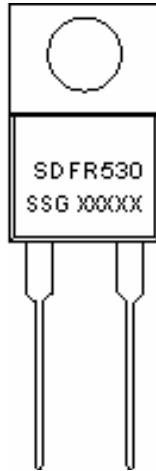


Symbol	Dimensions In Millimeters	
	Min	Max
A	4.470	4.670
A1	2.520	2.820
b	0.710	0.910
b1	1.170	1.370
c	0.310	0.530
c1	1.170	1.370
D	10.010	10.310
E	8.500	8.900
E1	12.060	12.460
e	2.540 TYP	
e1	4.980	5.180
F	2.590	2.890
h	0.000	0.300
L	13.400	13.800
L1	3.560	3.960
L2		1.000
Φ	3.735	3.935

TO-220AC



Marking Diagram:



Where XXXXX is YYWWL

SDFR530 = Part Name
SSG = SSG
YY = Year
WW = Week
L = Lot Number

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

Ordering Information:

Device	Package	Shipping
SDFR530	TO-220AC (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}	-	300	V
Max. Average Forward	$I_{O(AV)}$	50Hz, Sine wave, $T_C=105^{\circ}C$	5	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	50Hz, Half Sine wave	150	A



Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_F	@ $I_F = 5A$, Pulse, $T_J = 25^\circ C$	1.0	V
Max. Reverse Current	I_R	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ C$	30	μA
Max. Reverse Recovery Time	t_{rr}	$I_F = 500mA$, $I_R = 1A$, and $I_{rm} = 250mA$	100	ns

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

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +150	$^\circ C$
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^\circ C$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	-	3.5	$^\circ C / W$
Approximate Weight	wt	-	1.6	g
Case Style	TO-220AC			

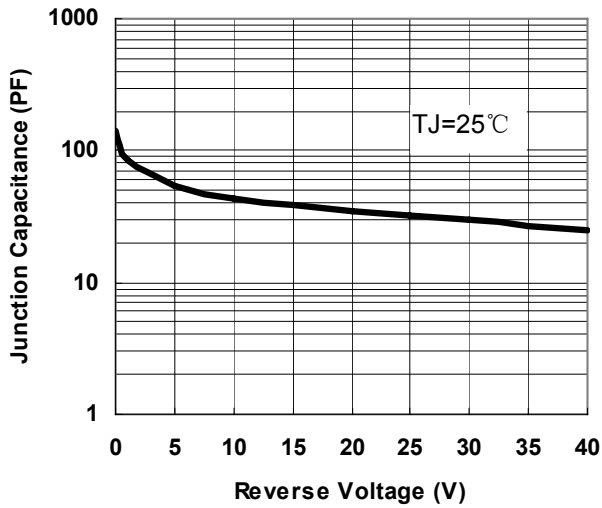


Fig.1-Typical Junction Capacitance

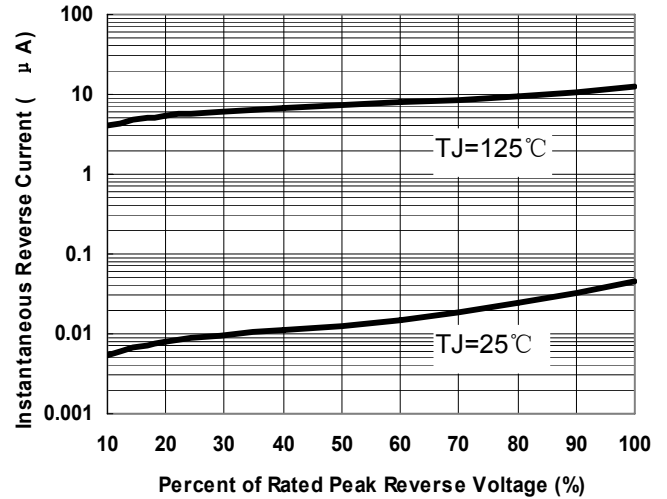


Fig.2-Typical Reverse Characteristics

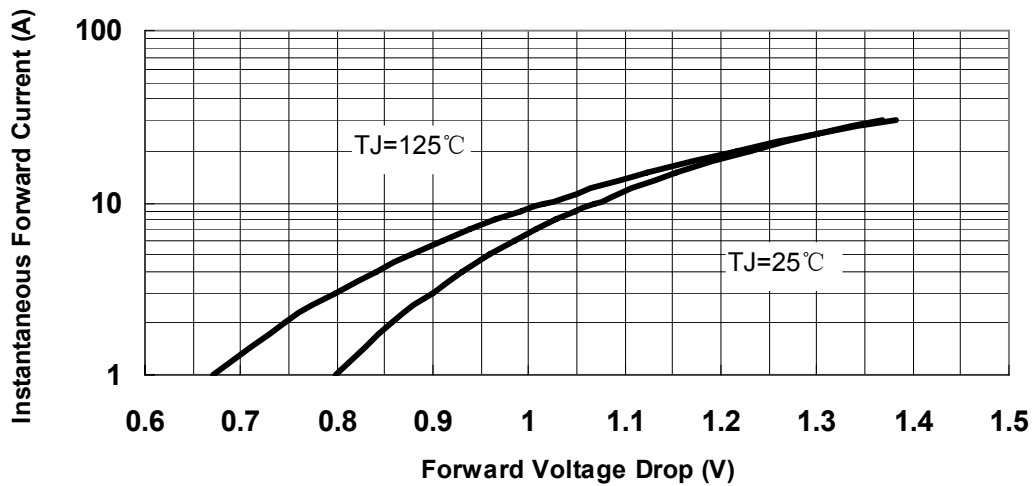


Fig.3-Typical Instantaneous Forward Voltage Characteristics



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