

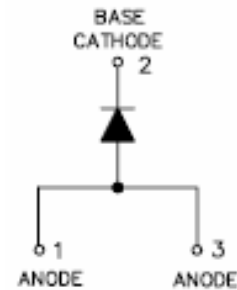
## SDURD2060 ULTRAFAST PLASTIC RECTIFIER

### Applications:

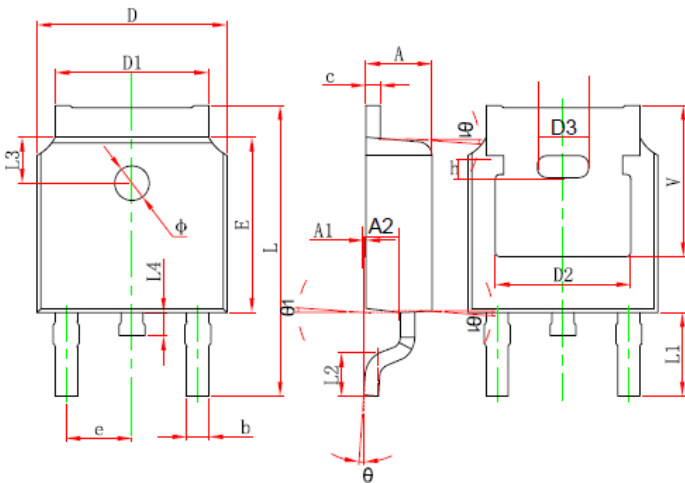
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners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



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.380	0.087	0.094
A10.000	0.000	0.100	0.000	0.004
b	0.710	0.810	0.028	0.032
c	0.460	0.560	0.018	0.022
D	6.500	6.700	0.256	0.264
D1	5.130	5.460	0.202	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.800	10.400	0.386	0.409
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
phi	1.100	1.300	0.043	0.051
theta	0°	8°	0°	8°
A2	0.910	1.110	0.036	0.044
V	5.350 REF.		0.211 REF.	
D3	1.778 REF.		0.070 REF.	
h	0.762 REF.		0.030 REF.	
theta1	7°		7°	

### DPAK

**Marking Diagram:**



Where XXXXX is YYWWL

SDUR = Device Type  
D = Package type  
20 = Forward Current (20A)  
60 = Reverse Voltage (600V)  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

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

**Ordering Information:**

Device	Package	Shipping
SDURD2060	DPAK (Pb-Free)	2500pcs / reel

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 @ $T_c=105^{\circ}C$ , rectangular wave form	20	A
Peak One Cycle Non- Repetitive Surge Current (Per leg)	$I_{FSM}$	8.3ms, Half Sine pulse	110	A

**Electrical Characteristics:**

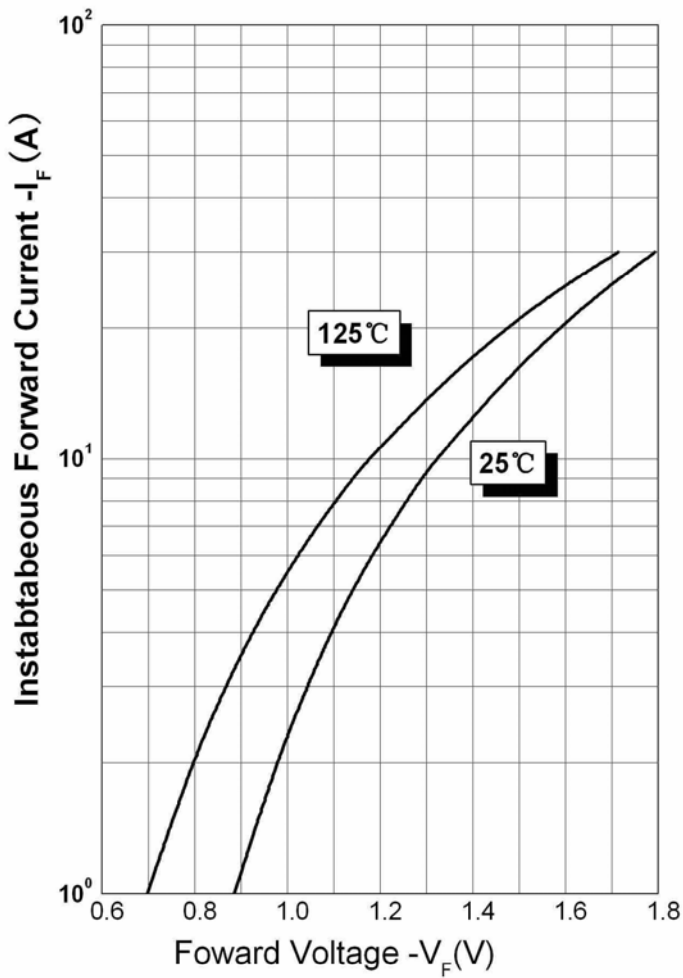
Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	$V_F$	@20A, Pulse, $T_J = 25^\circ\text{C}$	2.0	V
Reverse Current*	$I_R$	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	5	$\mu\text{A}$
Reverse Recovery Time	$t_{rr}$	$I_F=500\text{mA}$ , $I_R=1\text{A}$ , and $I_{rm}=250\text{mA}$	50	ns

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

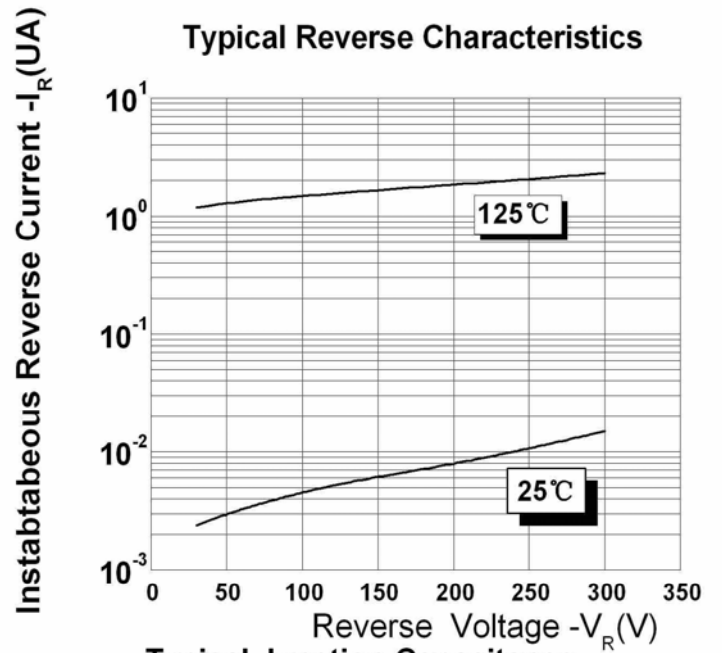
**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	$T_J$	-	-55 to +150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	5.0	$^\circ\text{C}/\text{W}$
Approximate Weight	wt	-	0.39	g
Case Style	DPAK			

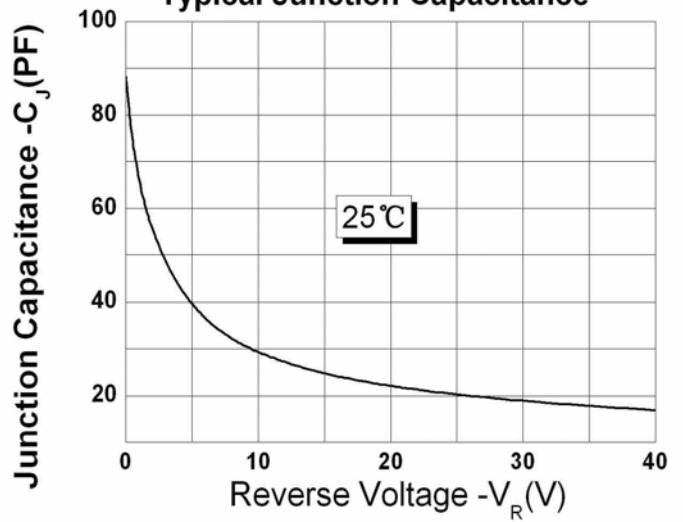
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



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