

SDURD1040

Technical Data Data Sheet N1125, Rev. A **Green Products**

SDURD1040 ULTRAFAST PLASTIC RECTIFIER

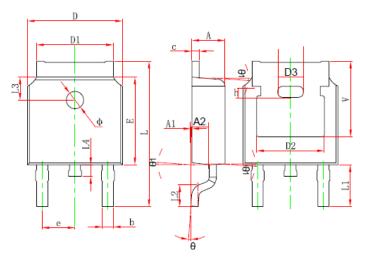
Applications:

- 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

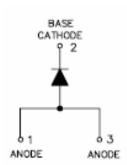
Mechanical Dimensions: In mm /Inches



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
Α	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
С	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	4.83	0 REF.	0.190	REF.
E	6.000	6.200	0.236	0.244
е	2.186	2.386	0.086	0.094
L	9.800	10.400	0.386	0.409
L1	2.90	0 REF.	0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.60	0 REF.	0.063	REF.
L4	0.600	1.000	0.024	0.039
Φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
A2	0.910	1.110	0.036	0.044
V	5.350 REF.		0.211	REF.
D3	1.778REF.		0.070	REF.
h	0.762REF.		0.030	REF.
θ1	7°		7	•

DPAK

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Marking Diagram:



Where XXXXX is YYWWL

SDUR	= Device Type
D	= Package type
10	= Forward Current (10A)
40	= Reverse Voltage (400V)
SSG	= SSG
ΥY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information:

Device	Package	Shipping
SDURD1040	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}	-	400	V
Max. Average Forward	I _{F(AV)}	50% duty cycle @TC =100°C rectangular wave form	10	А
Max. Peak One Cycle Non- Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine pulse	125	А

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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V _{F1}	@ 10A, Pulse, T _J = 25℃	1.5	V
	V_{F2}	@ 10 A, Pulse, T _J = 100℃	1.4	V
Max. Reverse Current	I _{R1}	@V _R = rated VR T₁ = 25℃	10	μA
	I _{R2}	\mathbb{Q} \mathbb{V}_{R} = rated $\mathbb{V}R$ \mathbb{T}_{J} = 125 \mathbb{C}	500	μΑ
Max. Reverse Recovery Time	t _{rr}	I_F =500mA, I_R =1A, and I_{rm} =250mA	45	ns

* Pulse Width < 300µs, Duty Cycle <2%

Measured lead to lead 5 mm from package body

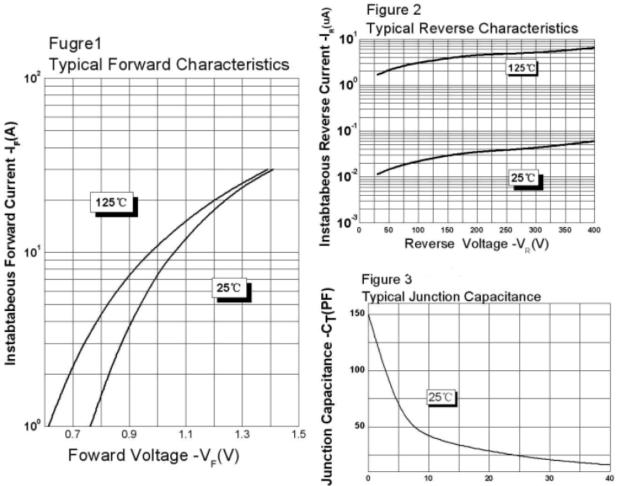
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +150	°C
Max. Storage Temperature	T _{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{ ext{ heta}JC}$	DC operation	5.0	°C/W
Approximate Weight	wt	-	0.39	g
Case Style		DPAK		

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Reverse Voltage -V_p(V)

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