



SDM20N40A

DUAL SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage Drop
- Common Anode Configuration
- Lead Free By Design/RoHS Compliant (Note 3)
- "Green" Device (Note 4)

Mechanical Data

- Case: SOT-23
- Case Material: Molded Plastic. "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020C
- Terminal Connections: See Diagram
- Terminals: Finish Matte Tin annealed over Alloy 42 leadframe. Solderable per MIL-STD-202, Method 208
- Marking & Type Code Information: See Last Page
- Ordering Information: See Last Page
- Weight: 0.008 grams (approx.)



SOT-23									
Dim	Min	Max							
Α	0.37	0.51							
В	1.20	1.40							
С	2.30	2.50 1.03 0.60 2.05 3.00 0.10							
D	0.89								
E	0.45								
G	1.78								
н	2.80								
J	0.013								
к	0.903	1.10							
L	0.45	0.61							
М	0.085	0.180							
α	0°	8°							
All Dir	nensions	in mm							

Maximum Ratings @ $T_A = 25^{\circ}C$ unless otherwise specified

r		T	
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} VR	40	V
RMS Reverse Voltage	V _{R(RMS)}	28	V
Forward Continuous Current, Per Element	I _{FM}	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 8.3ms	I _{FSM}	1	A
Junction Temperature Range	Tj	-65 to +125	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

Thermal Characteristics @ TA = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	Pd	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	500	°C/W

Electrical Characteristics @ $T_A = 25^{\circ}C$ unless otherwise specified

Characteristic	Symbol	Min	Тур	Мах	Unit	Test Condition		
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	40	_	—	V	I _R = 500μA		
Forward Voltage (Note 2)	VF			300 420 550	mV	I _F = 10mA I _F = 100mA I _F = 200mA		
Leakage Current (Note 2)	I _R		_	15 3	μA mA	$V_R = 30V$ $V_R = 30V$, $T_j = 100^{\circ}C$		
Total Capacitance	Ст		23	50	pF	V _R = 0V, f = 1.0MHz		

Notes: 1. Mounted on FR4 PC Board with recommended pad layout which can be found on our website

at http://www.diodes.com/datasheets/ap02001.pdf.

2. Short duration test pulse used to minimize self-heating effect.

3. No purposefully added lead.

4. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.





Ordering Information (Note 5)

Device	Packaging	Shipping			
SDM20N40A-7	SOT-23	3000/Tape & Reel			

Notes: 5. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



KLP = Product Type Marking Code YM = Date Code Marking Y = Year ex: P = 2003 M = Month ex: 9 = September

Date Code Key

	Year			2003	2	004	2005	20	06 2	2007	2008	2009
	Code P			R S		-	Г	U	V	W		
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	0	N	D

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