

Absolute Maximum Ratings

Symbol	Parameter	Value	Units
I_{PP}	Peak Pulse Current ($t_p=8/20\mu s$)	1.0	A
T_{OP}	Operating Temperature	-40 to 85	°C
T_{STOR}	Storage Temperature	-60 to 150	°C

CAUTION: Stresses above those listed in "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied.

Thermal Information

Parameter	Rating	Units
Storage Temperature Range	-65 to 150	°C
Maximum Junction Temperature	150	°C
Maximum Lead Temperature (Soldering 20-40s)	260	°C

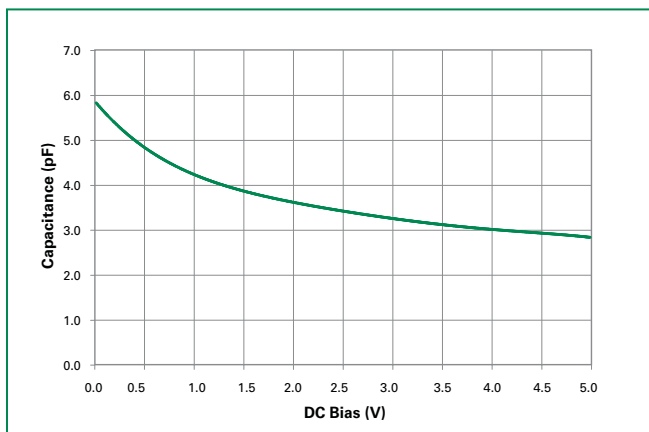
Electrical Characteristics ($T_{OP}=25^\circ C$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Reverse Voltage Drop	V_R	$I_R = 1mA$	7.0	7.8	8.5	V
Reverse Standoff Voltage	V_{RWM}	$I_R \leq 1\mu A$			6	V
Reverse Leakage Current	I_{LEAK}	$V_R = 5V$		0.1	1	μA
ESD Withstand Voltage ¹	V_{ESD}	IEC61000-4-2 (Contact Discharge)	± 8			kV
		IEC61000-4-2 (Air Discharge)	± 15			kV
Diode Capacitance ¹	C_D	Reverse Bias = 0V		6	7	pF
		Reverse Bias = 2.5V		3.5		pF

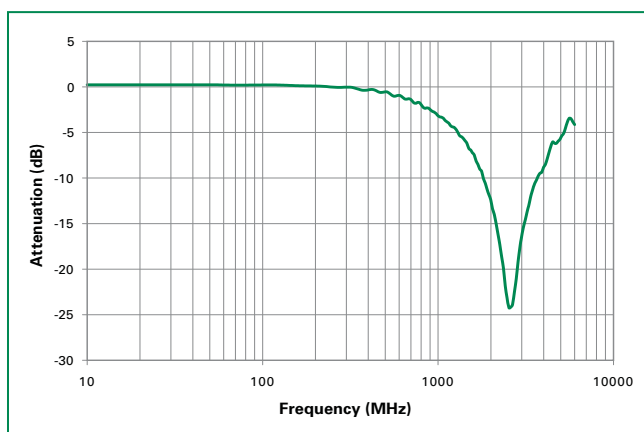
Note:

1. Parameter is guaranteed by design and/or device characterization.

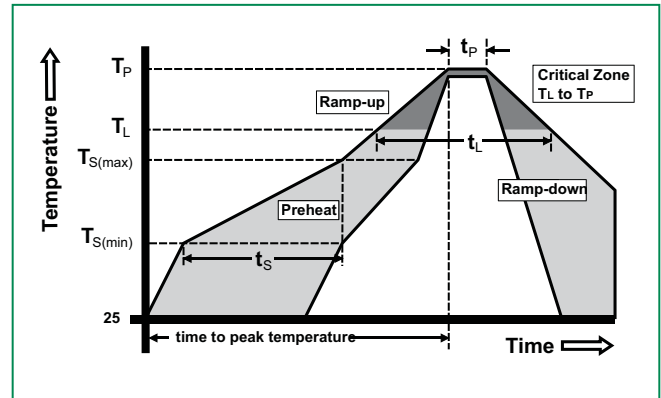
Capacitance vs. Reverse Bias



Insertion Loss (S21) I/O to GND



Reflow Condition		Pb – Free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus) Temp (T_L) to peak		3°C/second max
$T_{S(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260 $\pm 0/5$ °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C

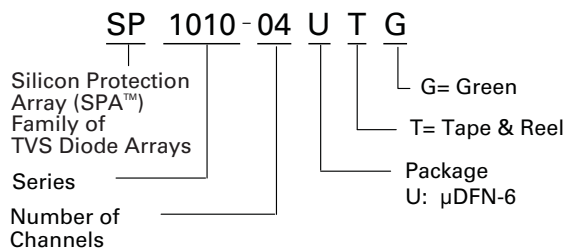


The figure consists of three orthographic views of a mechanical part:

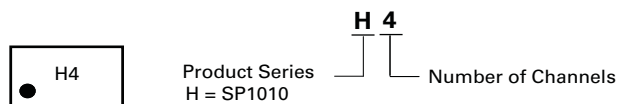
- Top View:** A square part with a 3x3 grid. The top row is labeled 6, 5, 4 from left to right. The bottom row is labeled 1, 2, 3 from left to right. The cell at (row 2, column 2) is shaded gray. Dimension D is the width from the left edge to the center of the shaded cell. Dimension E is the height from the bottom edge to the center of the shaded cell. Features A and B are indicated at the top and bottom center respectively. A leader points to the bottom-left corner with the text "Pin 1 Index Area".
- Bottom View:** Shows the underside of the part. It has a 3x3 grid with columns labeled 4, 5, 6 from left to right and rows labeled 3, 2, 1 from front to back. Dimensions e and L are shown. Surface texture symbols (0.05 C) are present on the top surfaces. A feature is labeled "Pin 1 chamfer 0.10 x 45°".
- Side View:** Shows the part from the side. It has a horizontal base and a vertical section. Features A, A1, and A3 are indicated. A "Seating plane" is shown. Dimension b is the width of the base. A feature C is indicated at the bottom right. A circular feature is shown with a diameter symbol and a tolerance of 0.10 M. A rectangular feature is shown with a tolerance of 0.05 M.

Package	μDFN-6 (1.25x1.0x0.5mm)			
JEDEC	MO-229			
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.45	0.55	0.018	0.022
A1	0.00	0.05	0.000	0.002
A3	0.127 REF		0.005 REF	
b	0.15	0.25	0.006	0.010
D	1.20	1.30	0.047	0.051
D2	-	-	-	-
E	0.95	1.05	0.037	0.041
E2	-	-	-	-
e	0.4 REF		0.016 REF	
L	0.25	0.35	0.010	0.014

Part Numbering System



Part Marking System



Product Characteristics

Lead Plating	Pre-Plated Frame
Lead Material	Copper Alloy
Lead Coplanarity	0.0004 inches (0.102mm)
Substitute Material	Silicon
Body Material	Molded Epoxy
Flammability	UL 94 V-0

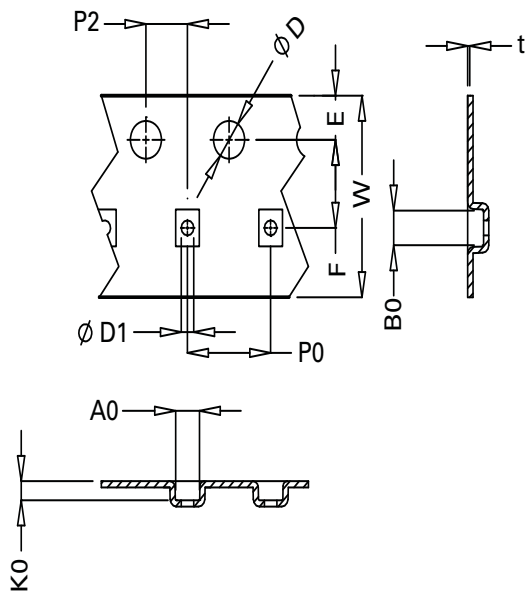
Notes :

1. All dimensions are in millimeters
2. Dimensions include solder plating.
3. Dimensions are exclusive of mold flash & metal burr.
4. Blo is facing up for mold and facing down for trim/form, i.e. reverse trim/form.
6. Package surface matte finish VDI 11-13.

Ordering Information

Part Number	Package	Marking	Min. Order Qty.
SP1010-04UTG	μ DFN-6 (1.25x1.0x0.5mm)	H4	3000

Embossed Carrier Tape & Reel Specification — μ DFN-6 (1.25x1.0x0.5mm)



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
E	1.65	1.85	0.06	0.07
F	3.45	3.55	0.14	0.14
D1	0.50	0.65	0.02	0.03
D	1.50 MIN		0.06 MIN	
P0	3.90	4.10	0.15	0.16
10P0	40.0 +/- 0.20		1.57 +/- 0.01	
W	7.90	8.30	0.31	0.33
P2	1.95	2.05	0.08	0.08
A0	1.09	1.19	0.04	0.05
B0	1.42	1.52	0.06	0.06
K0	0.71	0.81	0.03	0.03
t	0.25 TYP		0.01 TYP	