

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

www.msksemi.com

Feature

- Ultra Small mold type. (DFN1006)
- Low I_R
- High reliability.

Applications

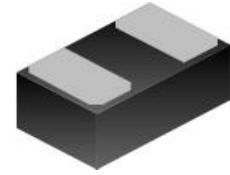
- Low current rectification

Construction

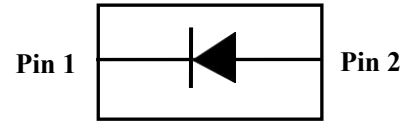
- Silicon epitaxial planar

Mechanical Characteristics

- Mounting position: Any
- Device meets MSL 1 requirements
- Qualified max reflow temperature:260°C



DFN1006



Circuit Diagram

Electrical characteristics per line@25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V _F	-	0.35	0.40	V	I _F =100mA
Forward voltage	V _F	-	0.45	0.50	V	I _F =500mA
Forward voltage	V _F	-	0.55	0.60	V	I _F =1A
Reverse current	I _R	-	-	0.1	mA	V _R =40V
Junction Capacitance	C _j	-	90	-	pF	V _R =0V f =1MHz

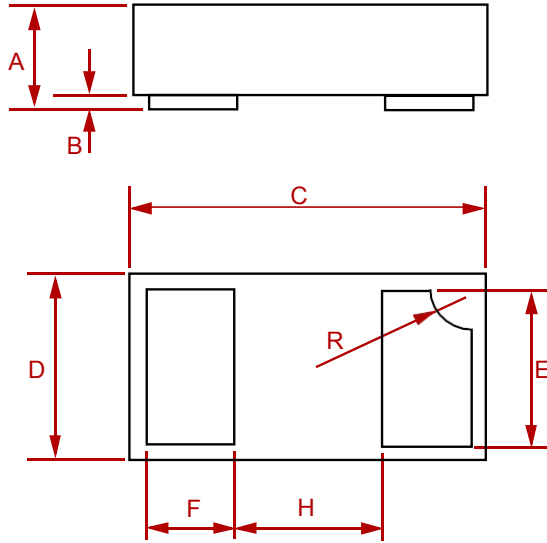
Absolute maximum rating@25°C

Parameter	Symbol	limits	Unit
Reverse voltage(repetitive peak)	V _{RM}	45	V
Reverse voltage (DC)	V _R	40	V
Average rectified forward current	I _o	1	A
Non-Repetitive Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I _{FSM}	5	A

Parameter	Symbol	limits	Unit
Repetitive peak forward current (t _p ≤ 1ms; δ ≤ 0.25)	I _{FRM}	5	A
Power Dissipation	PD	400	mW
Thermal resistance ¹⁾	R _{θJA}	310	°C/W
Operating Junction temperature Range	T _j	-55 to 125	°C
Storage temperature	T _{stg}	-55 to 125	°C

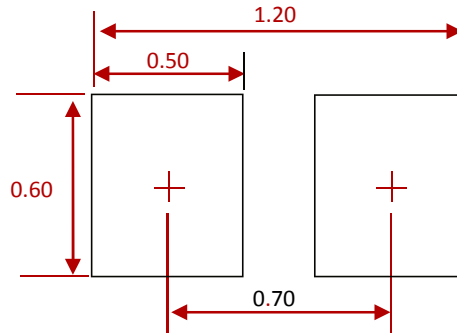
Note1:FR 4 PCB,minimum recommended pad layout.

PACKAGE MECHANICAL DATA



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.0125	0.02	0.32	0.52
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15

Suggested Pad Layout



NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

REEL SPECIFICATION

P/N	PKG	QTY
NSR10404NX-MS	DFN1006	10000

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