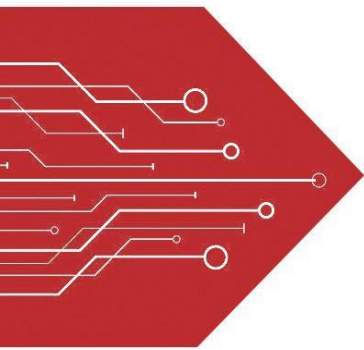


# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

**Feature**

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

**Applications**

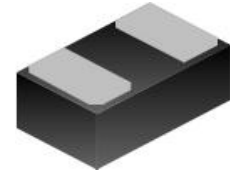
- Low current rectification

**Construction**

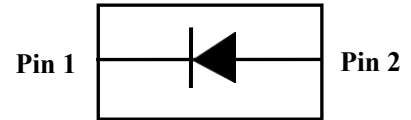
- Silicon epitaxial planar

**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	$V_R=0V f =1MHz$

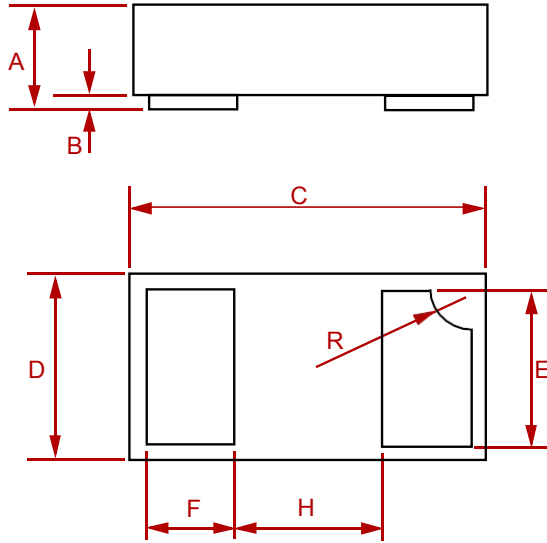
**Absolute maximum rating@25°C**

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 ( $t_p \leq 1ms$ ; $\delta \leq 0.25$ )	$I_{FRM}$	5	A
Power Dissipation	PD	400	mW
Thermal resistance <sup>1)</sup>	$R_{\theta JA}$	310	°C/W
Operating Junction temperature Range	$T_j$	-55 to 125	°C
Storage temperature	$T_{stg}$	-55 to 125	°C

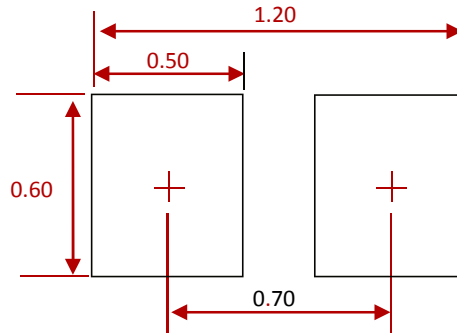
Note1:FR 4 PCB,minimum recommended pad layout.

**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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