

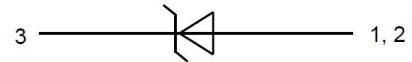
**SE24NMP11GJ**
**Features**

- ◆ Operating Voltage: 24V
- ◆ One power line protects
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30\text{kV}$
    - Contact discharge:  $\pm 30\text{kV}$
- ◆ -IEC61000-4-5 (Lightning)140A (8/20 $\mu\text{s}$ )
- ◆ RoHS Compliant

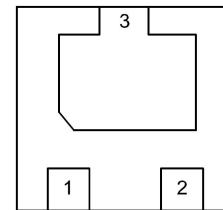
**DFN2020-3L**

**Applications**

- ◆ Power Management
- ◆ Industrial Application
- ◆ Power Supply Protection

**Circuit Diagram**

**Mechanical Characteristics**

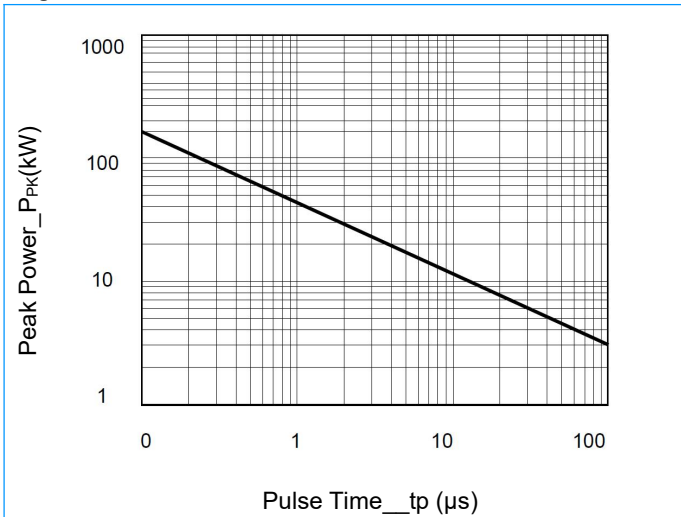
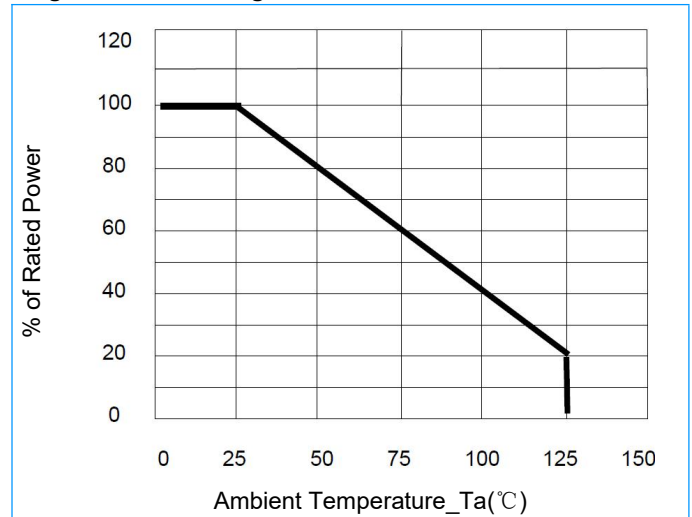
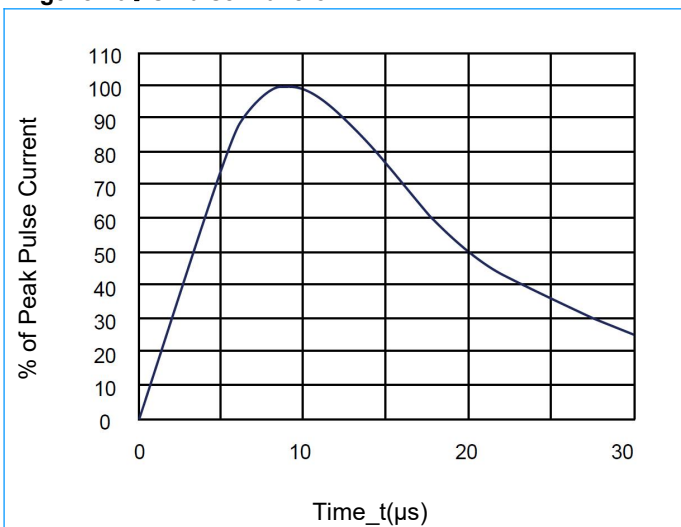
- ◆ DFN2020-3L Package
- ◆ Lead Finish: NiPdAu
- ◆ Case Material: "Green" Molding Compound
- ◆ Moisture Sensitivity: Level 1 per J-STD-020
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch

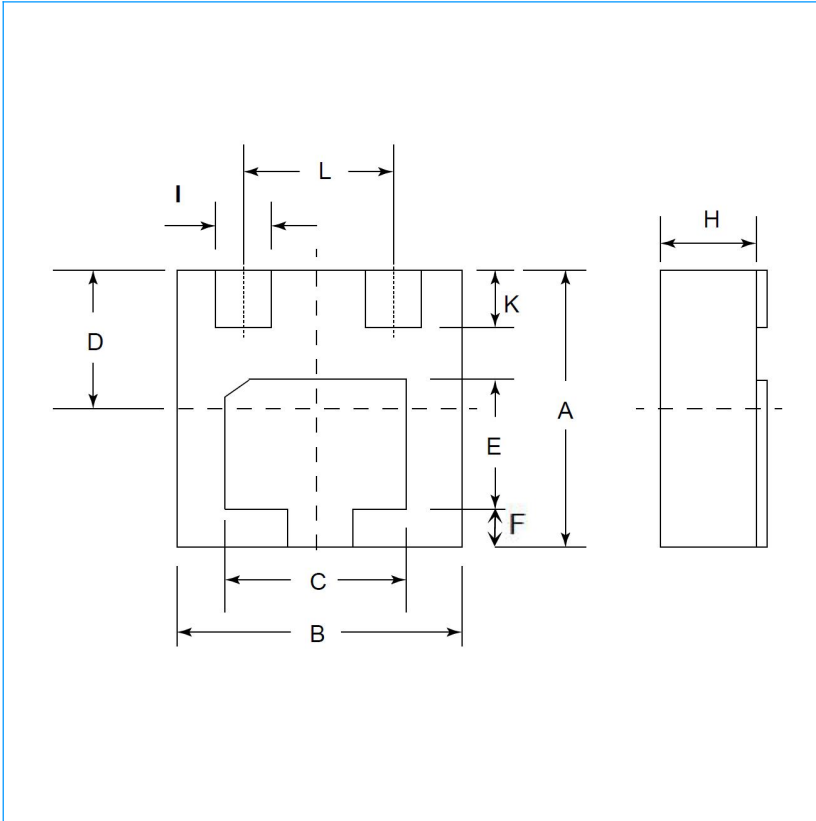
**Pin Configuration**

**Absolute Maximum Ratings**

Symbol	Parameter	Value	Units
$I_{PP}$	Peak pulse current ( $t_P=8/20\mu\text{s}$ )	140	A
$V_{ESD}$	ESD per IEC 61000-4-2 (Air)	$\pm 30$	kV
	ESD per IEC 61000-4-2 (Contact)	$\pm 30$	
$T_{OP}$	Operating Temperature Range	-55 ~ +125	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

**SE24NMP11GJ**
**Electrical Characteristics ( $T_A = 25^\circ\text{C}$ , unless otherwise noted)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse working voltage	$V_{RWM}$	--	--	--	24	V
Breakdown voltage	$V_{BR}$	$I_T = 1\text{mA}$	25	--	--	V
Reverse leakage current	$I_R$	$V_{RWM} = 24\text{V}$	--	--	1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP} = 50\text{A}$ , $t_P = 8/20\mu\text{s}$	--	40	--	V
Clamping Voltage	$V_C$	$I_{PP} = 140\text{A}$ , $t_P = 8/20\mu\text{s}$	--	60	--	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$	--	680	--	pF

**Typical Performance Characteristics ( $T_A = 25^\circ\text{C}$ , unless otherwise noted)**
**Fig1. Peak Pulse Power vs. Pulse Time**

**Fig2. Power Derating Curve**

**Fig3. 8/20  $\mu\text{s}$  Pulse Waveform**


**SE24NMP11GJ**
**DFN2020-3L Package Outline & Dimensions (Unit: mm)**


Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	1.90	2.00	2.10
B	1.90	2.00	2.10
C	1.40	1.50	1.60
D	0.95	1.0	1.05
E	0.95	1.05	1.15
F	0.20	--	0.30
H	--	--	0.60
L	--	1.3	--
I	0.25	0.30	0.35
K	0.35	0.40	0.45