

# Schottky barrier diode

## **RSX301LA-30**

## Applications

General rectification

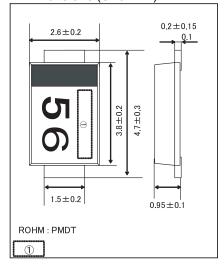
#### ● Features

- 1) Small and Thin power mold type. (PMDT)
- 2) Low  $I_R$  & Low  $V_F$
- 3) High reliability.

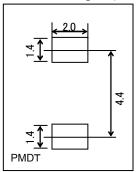
#### Construction

Silicon epitaxial planer

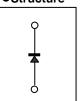
#### ●Dimensions (Unit:mm)



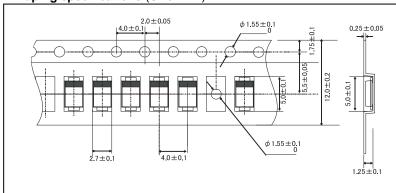
#### • Land size figure (Unit : mm)



#### Structure



## ●Taping specifications (Unit : mm)



#### ●Absolute maximum ratings (Ta=25°C)

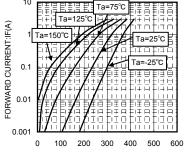
Parameter	Symbol	Limits	Unit					
Reverse voltage (repetitive peak)	$V_{RM}$	30	V					
Reverse voltage (DC)	$V_R$	30	V					
Average rectified forward current	lo	3	Α					
Forward current saurge peak (60Hz / 1cyc)	I <sub>FSM</sub>	70	Α					
Junction temperature	Tj	150	°C					
Storage temperature	Tstg	-40 to +150	°C					

<sup>(\*1)</sup>Tc=90°C max Mounted on epoxy board. 180°Half sine wave

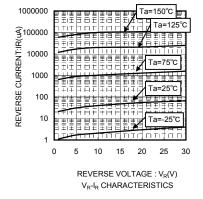
## ●Electrical characteristics (Ta=25°C)

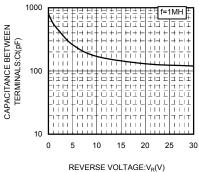
Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	$V_{F}$	-	-	0.42	V	I <sub>F</sub> =3.0A
Reverse current	I <sub>R</sub> 1	-	-	90	μA	V <sub>R</sub> =15V
	I <sub>R</sub> 2	-	-	200	μΑ	V <sub>R</sub> =30V

#### •Electrical characteristics curves

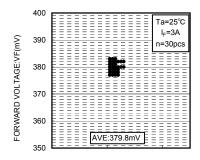


FORWARD VOLTAGE :  $V_F(mV)$  $V_{F}$ -IF CHARACTERISTICS

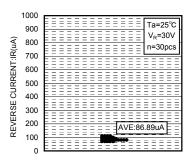




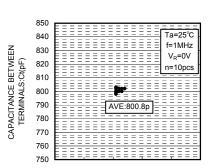
REVERSE VOLTAGE: V<sub>R</sub>(V) V<sub>R</sub>-Ct CHARACTERISTICS



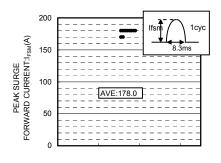
VF DISPERSION MAP



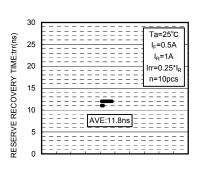
IR DISPERSION MAP



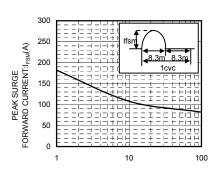
Ct DISPERSION MAP



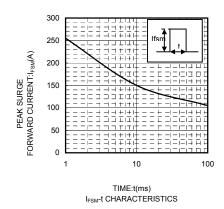
IFSM DISRESION MAP



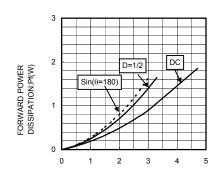
trr DISPERSION MAP



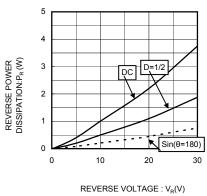
NUMBER OF CYCLES I<sub>FSM</sub>-CYCLE CHARACTERISTICS

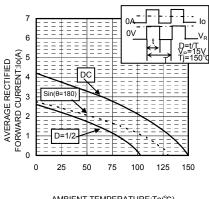


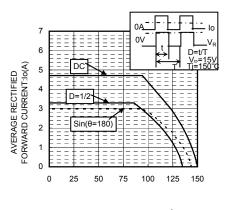
TIME:t(s)
Rth-t CHARACTERISTICS



AVERAGE RECTIFIED FORWARD CURRENT : Io(A) Io-Pf CHARACTERISTICS



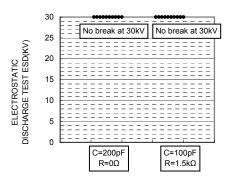




VR-P<sub>R</sub> CHARACTERISTICS

AMBIENT TEMPERATURE:Ta(°C)
Derating Curve"(Io-Ta)

CASE TEMPARATURE:Tc(°C)
Derating Curve\*(Io-Tc)



ESD DISPERSION MAP

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