

Shottky barrier diode

RSX301L-30

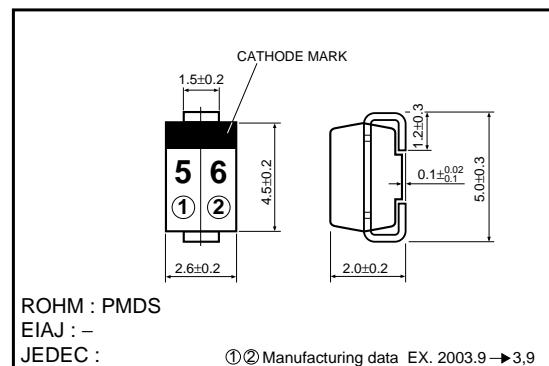
●Application

High efficient shottky barrier diode
Rectifier for power supply units
Battery protection against reversal current

●Features

- 1) Small mold type. (PMDS (4526))
- 2) High reliability.
(ESD resistance typ=30kV over (machine model))
- 3) Low V_F / Low I_R .
($V_F=0.38V$ at 3A / $I_R=90\mu A$ at 30V)

●External dimensions (Unit : mm)



●Structure

Silicon Epitaxial Planer

●Absolute maximum ratings ($T_a=25^\circ C$)

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	30	V
Reverse voltage (DC)	V_R	30	V
Average rectified forward current	I_o	3	A
Forward peak surge current (60Hz / 1cyc.)	I_{FSM}	70	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-40 to 150	°C

●Electrical characteristics ($T_a=25^\circ C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	–	0.38	0.42	V	$I_F=3A$
Reverse current	I_R	–	90	200	μA	$V_R=30V$
Capacitance between terminals	C_T	–	180	–	pF	$V_R=10V, f=1MHz$
Electro static discharge resistance	ESD	–	30	–	kV	$C=200pF, R=0\Omega$ 1puls

Diodes

●Electrical characteristic curves (Ta=25°C)

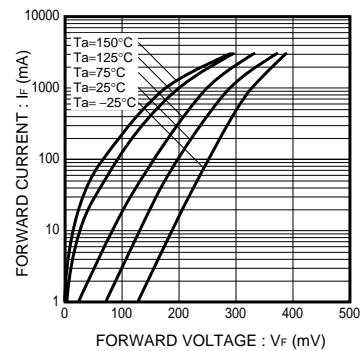


Fig.1 Forward Temperature Characteristics

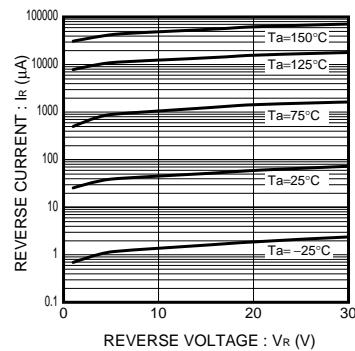


Fig.2 Reverse Temperature Characteristics

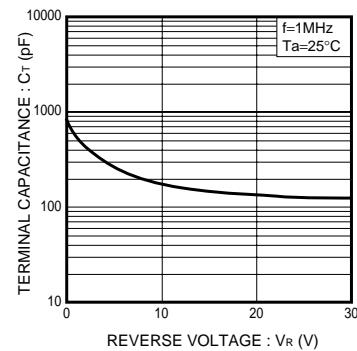


Fig.3 Capacitance Between Terminals Characteristics

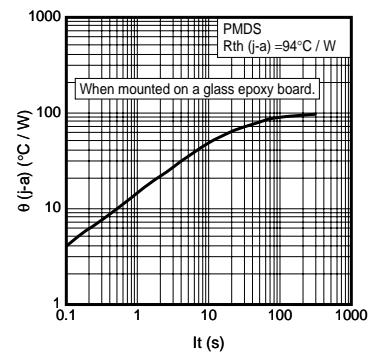


Fig.4 Thermal Resistance

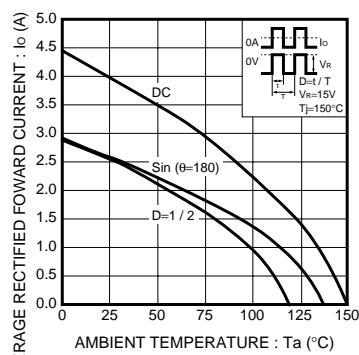


Fig.5 Derating Curve (Io-Ta)

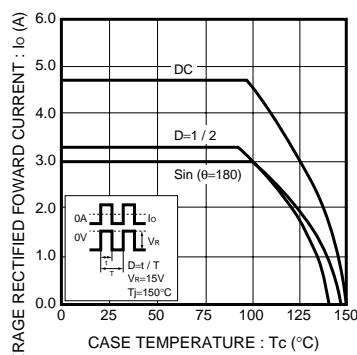


Fig.6 Derating Curve (Io-Tc)

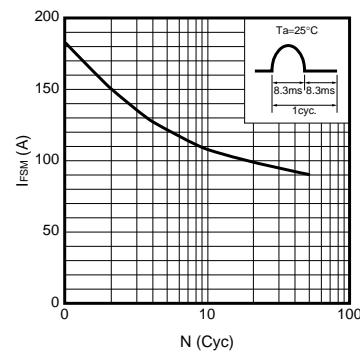


Fig.7 Forward peak surge current (Actual data)

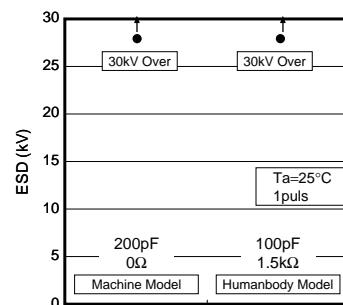


Fig.8 ESD resistance

Appendix

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