# Schottky barrier diode RB160L-60

## Applications

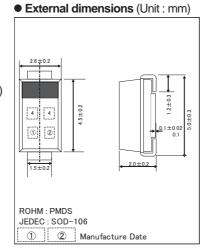
General rectification

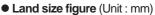
#### Features

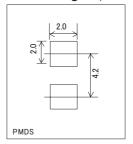
- 1) Small power mold type. (PMDS)
- 2) Low I<sub>R</sub>.
- 3) High reliability.

#### Construction

Silicon epitaxial planar



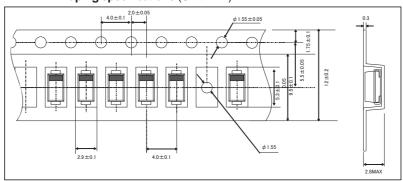








# • Taping specifications (Unit : mm)



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

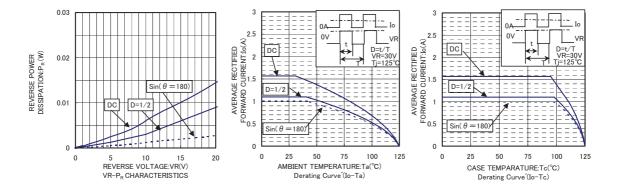
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	60	V
Reverse voltage (DC)	$V_R$	60	V
Average rectified forward current	lo	1	А
Forward current surge peak (60Hz-1cyc)	I <sub>FSM</sub>	30	А
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-40 to +125	°C

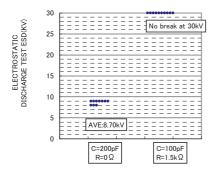
<sup>(\*1)</sup> Mounted on epoxy board. 180° Half sine wave

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	$V_{F}$	-	-	0.58	V	I <sub>F</sub> =1.0A
Reverse current	I <sub>R</sub>	-	-	1	m A	V <sub>R</sub> =60V

#### ●Electrical characteristic curves (Ta=25°C) 1000 Ta=125°C 1000 FORWARD CURRENT:IF(mA) REVERSE CURRENT:IR(uA) CAPACITANCE BETWEEN 100 100 TERMINALS:Ct(pF) 100 10 10 0.1 0.01 0.001 0 20 30 40 5 10 15 20 REVERSE VOLTAGE:VR(V) 0 50 0 REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS FORWARD VOLTAGE: VF(mV) 550 Ta=25°C VR=60V Ta=25°C f=1MHz Ta=25°C IF=1A FORWARD VOLTAGE:VF(mV) n=30pcs 540 VR=0V n=10pcs REVERSE CURRENT:IR(uA) 20 530 15 520 10 AVE:3.724uA 510 5 AVE:529.4mV AVE:192.4pF 500 150 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP 200 RESERVE RECOVERY TIME:trr(ns) IF=0.5A PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) IR=1A 150 Irr=0.25\*IR 20 100 10 50 AVE:126.0A 0 10 NUMBER OF CYCLES trr DISPERSION MAP IFSM DISRESION MAP IFSM-CYCLE CHARACTERISTICS 200 1000 TRANSIENT THAERMAL IMPEDANCE:Rth (°C/W) PEAK SURGE FORWARD CURRENT:IFSM(A) 150 DISSIPATION:Pf(W) FORWARD POWER 100 Rth(i-c) IF=0.5A 50 0.1 0.5 1 1.5 AVERAGE RECTIFIED FORWARD CURRENT: Io(A) Io-Pf CHARACTERISTICS 0 100 10 TIME:t(ms) 0.1 TIME:t(s) Rth-t CHARACTERISTICS IFSM-t CHARACTERISTICS





ESD DISPERSION MAP

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