

# Schottky Barrier Diode

RB521SM-40

●Applications

Small current rectification

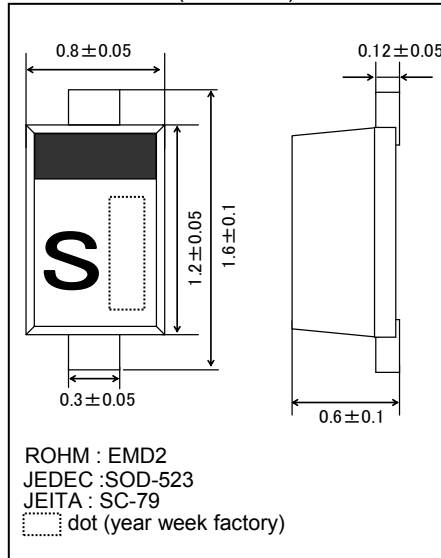
●Features

- 1) Ultra small mold type. (EMD2)
- 2) Low  $V_F$
- 3) High reliability

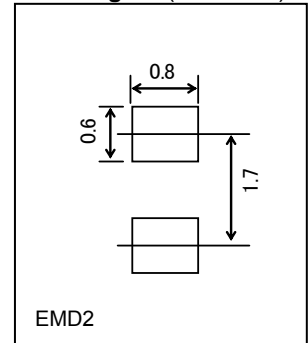
●Construction

Silicon epitaxial

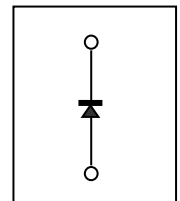
●Dimensions (Unit : mm)



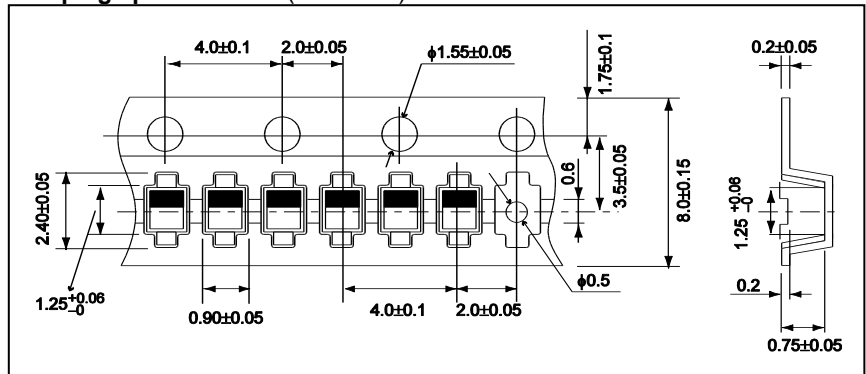
●Land size figure (Unit : mm)



●Structure



●Taping specifications (Unit : mm)

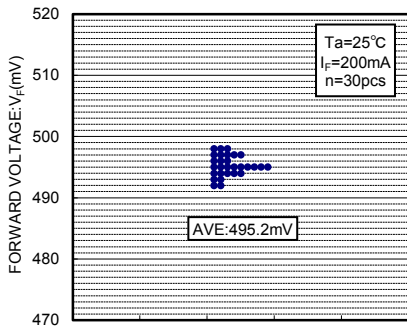
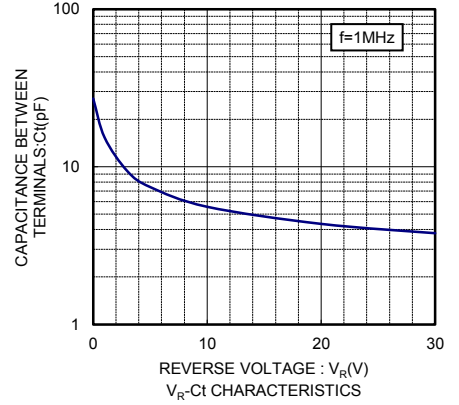
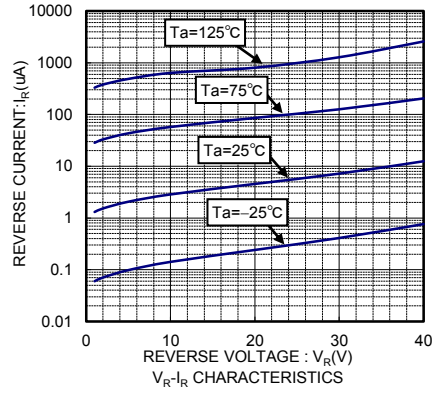
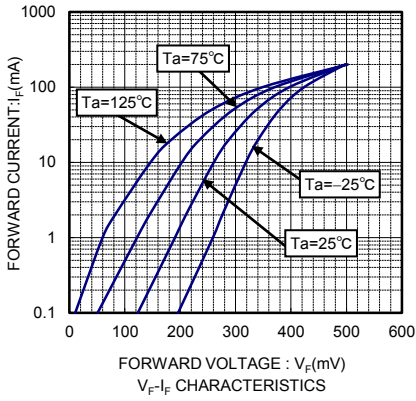


●Absolute maximum ratings (Ta=25°C)

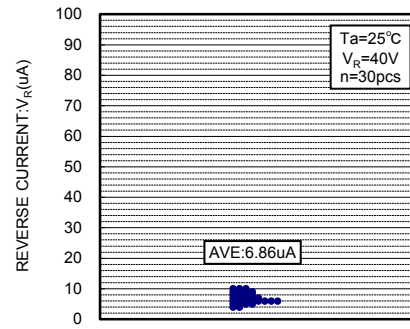
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive)	$V_{RM}$	45	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current	$I_o$	200	mA
Forward current surge peak (60Hz · 1cyc)	$I_{FSM}$	4	A
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

●Electrical characteristics (Ta=25°C)

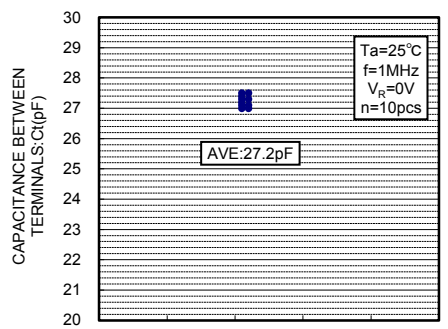
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	0.16	0.26	0.30	V	$I_F=10mA$
		0.31	0.395	0.45		$I_F=100mA$
		0.41	0.495	0.54		$I_F=200mA$
Reverse current	$I_R$	-	3.50	20.00	μA	$V_R=10V$
		-	13.00	90.00		$V_R=40V$



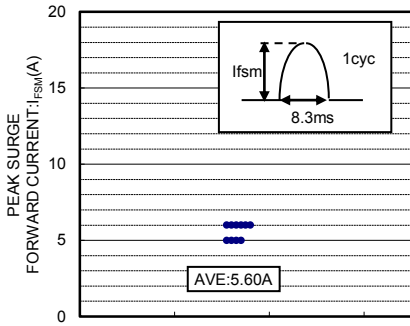
$V_F$  DISPERSION MAP



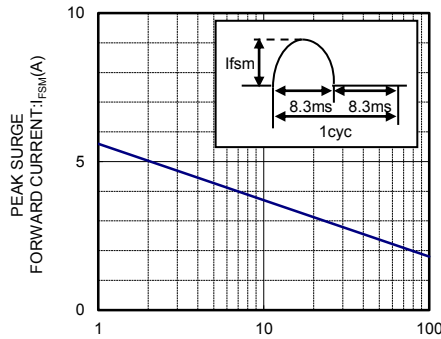
$I_R$  DISPERSION MAP



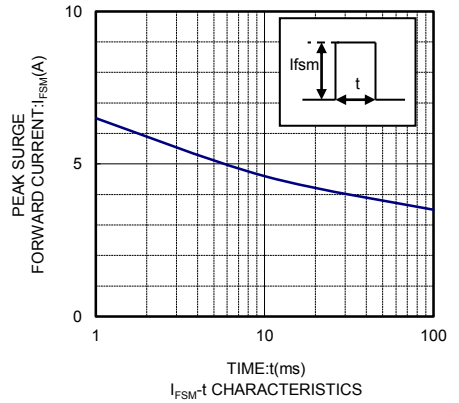
$C_t$  DISPERSION MAP



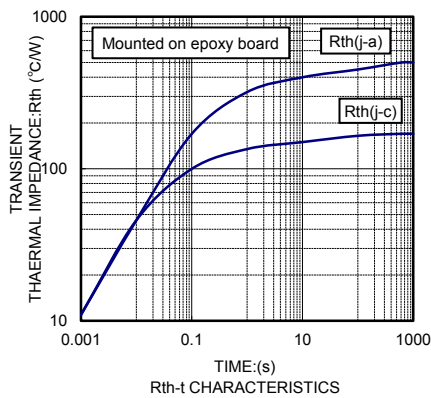
$I_{FSM}$  DISPERSION MAP



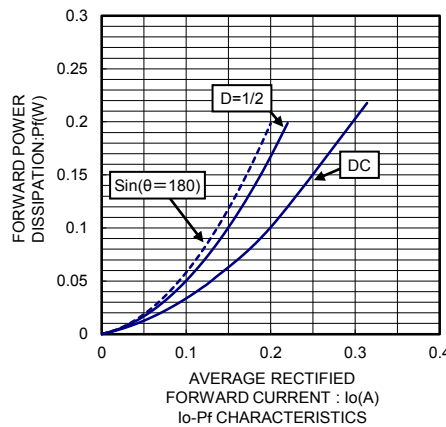
$I_{FSM}$ -CYCLE CHARACTERISTICS



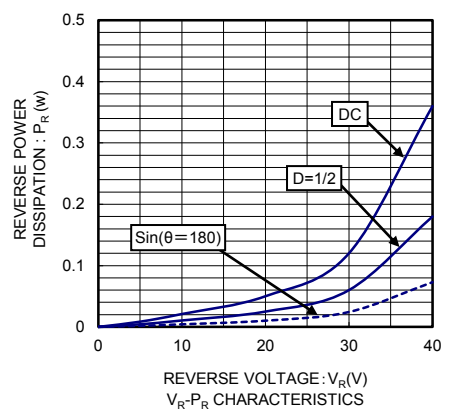
$I_{FSM}$ - $t$  CHARACTERISTICS



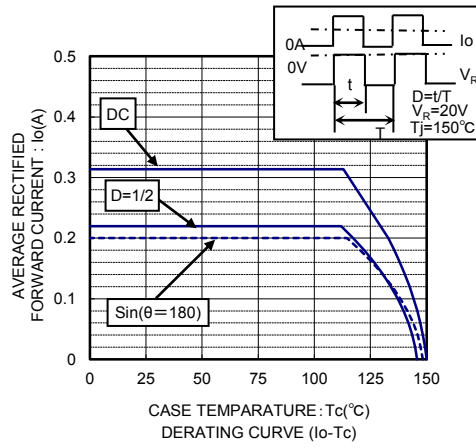
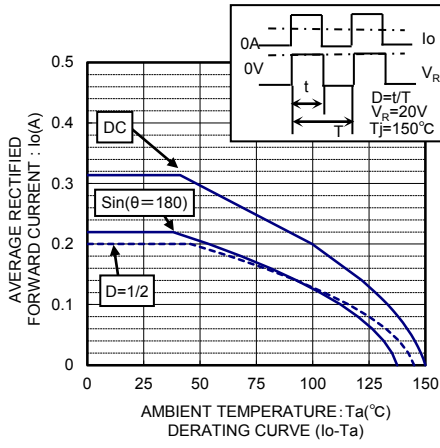
$R_{th}$ - $t$  CHARACTERISTICS



$I_o$ - $P_R$  CHARACTERISTICS



$V_R$ - $P_R$  CHARACTERISTICS



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