

Schottky barrier diode

RB450F

●Applications

Low current rectification

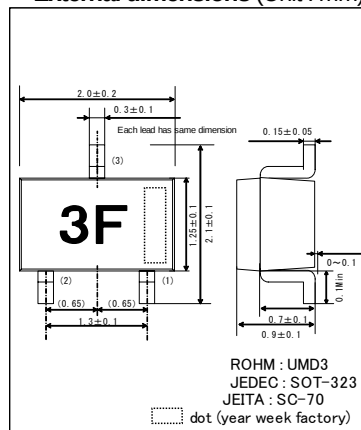
●Features

- 1) Small mold type. (UMD3)
- 2) Low I_R
- 3) High reliability.

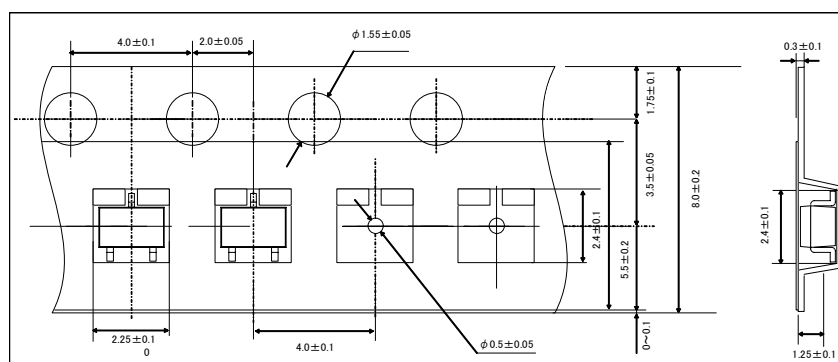
●Construction

Silicon epitaxial planar

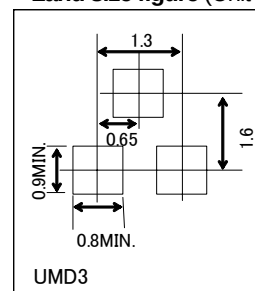
● External dimensions (Unit : mm)



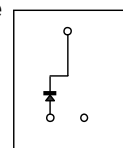
● Taping specifications (Unit : mm)



● Land size figure (Unit : mm)



●Structure

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

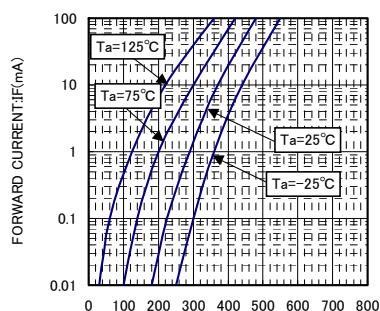
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	45	V
Reverse voltage (DC)	V_R	40	V
Average rectified forward current	I_O	100	mA
Forward current surge peak (60Hz·1cyc)	I_{FSM}	1	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +125	$^\circ\text{C}$

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

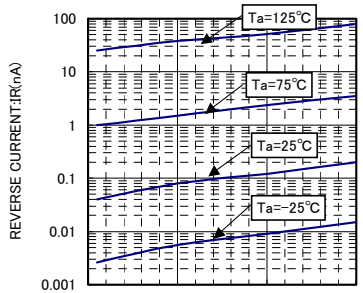
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.45	V	$I_F=10\text{mA}$
Reverse current	I_R	-	-	1	μA	$V_R=10\text{V}$
Capacitance between terminal	C_t	-	6.0	-	pF	$V_R=10\text{V}$, $f=1\text{MHz}$

Diodes

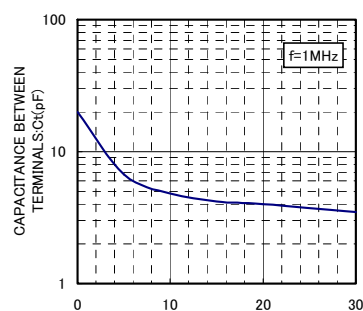
●Electrical characteristic curves (Ta=25°C)



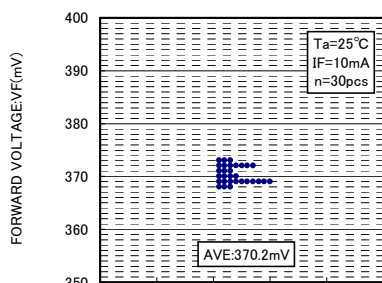
FORWARD VOLTAGE: VF(mV)
VF-IF CHARACTERISTICS



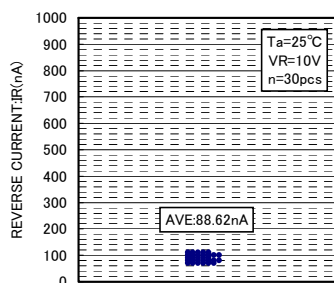
REVERSE VOLTAGE: VR(V)
VR-IR CHARACTERISTICS



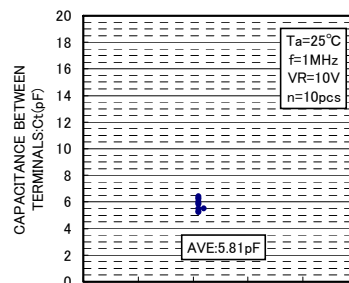
REVERSE VOLTAGE: VR(V)
VR-Ct CHARACTERISTICS



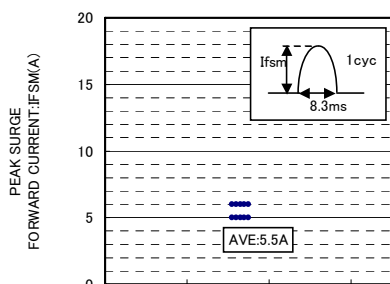
VF DISPERSION MAP



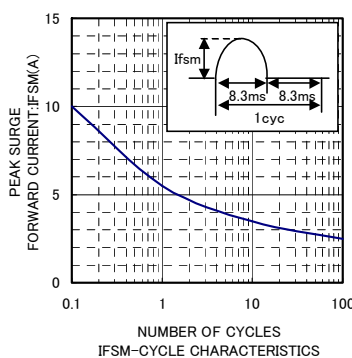
IR DISPERSION MAP



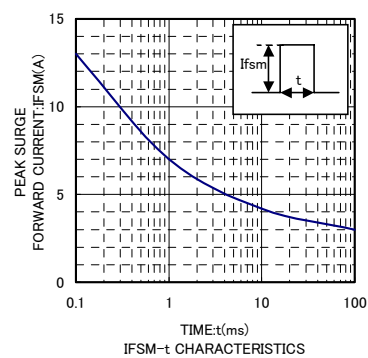
Ct DISPERSION MAP



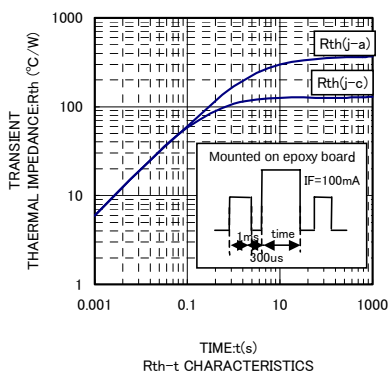
IFSM DISERSION MAP



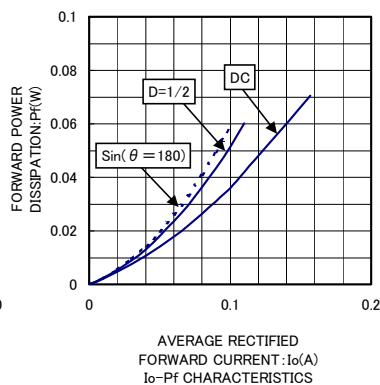
NUMBER OF CYCLES
IFSM-CYCLE CHARACTERISTICS



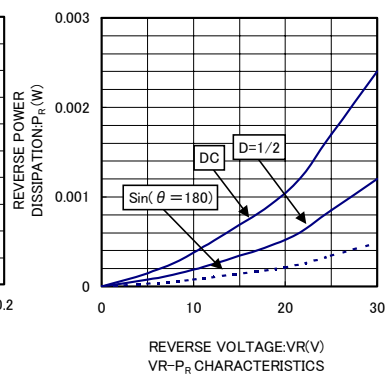
TIME:t(ms)
IFSM-t CHARACTERISTICS



TIME:t(s)
Rth-t CHARACTERISTICS

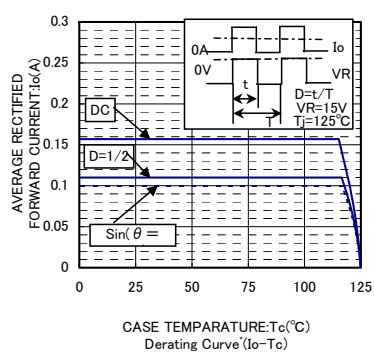
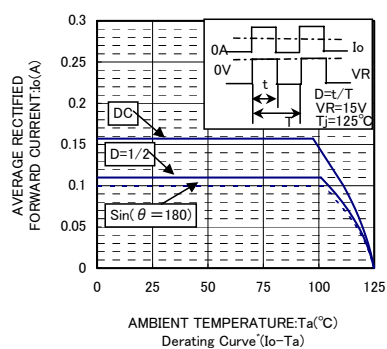


AVERAGE RECTIFIED
FORWARD CURRENT: Io(A)
Io-Pf CHARACTERISTICS



REVERSE VOLTAGE: VR(V)
VR-Pr CHARACTERISTICS

Diodes



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