

# SM220A thru SM2100A

Schottky Barrier Rectifiers  
Reverse Voltage 20 to100V

## FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Low power loss,high efficiency
- \* For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- \* Guardring for over voltage protection
- \* High temperature soldering guaranteed: 260°C/10 seconds at terminals

## Mechanical Data

**Case:** JEDEC DO-214AC,

molded plastic over glass die

**Terminals:** Plated axial leads, solderable per

MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.0026 oz., 0.075 g

**Handling precautin:**None



## 1.Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SM220A	SM230A	SM240A	SM250A	SM260A	SM280A	SM2100 A	Unit
device marking code		S22	S23	S24	S25	S26	S28	S210	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	60							A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	50							°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-40 to +150							°C

## Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SM220A	SM230A	SM240A	SM250A	SM260A	SM280A	SM2100 A	Unit	
Maximum instantaneous forward voltage at 2.0A	$V_F$	0.50			0.70		0.85		V	
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	$I_R$	0.5				10.0				mA
Typical junction capacitance at 4.0V, 1MHz	$C_J$	110							PF	

NOTES:

1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# SM220A thru SM2100A

## 2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

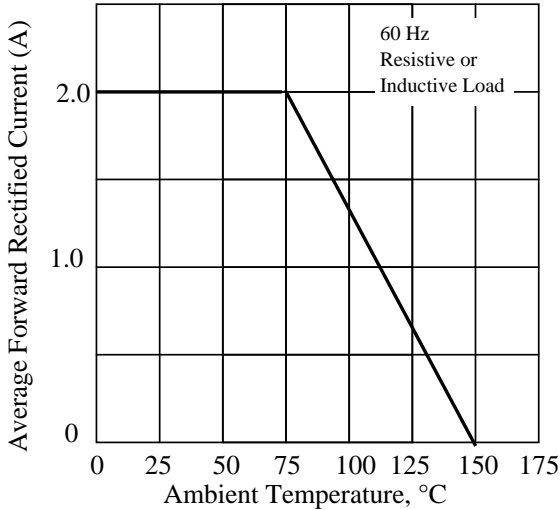


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

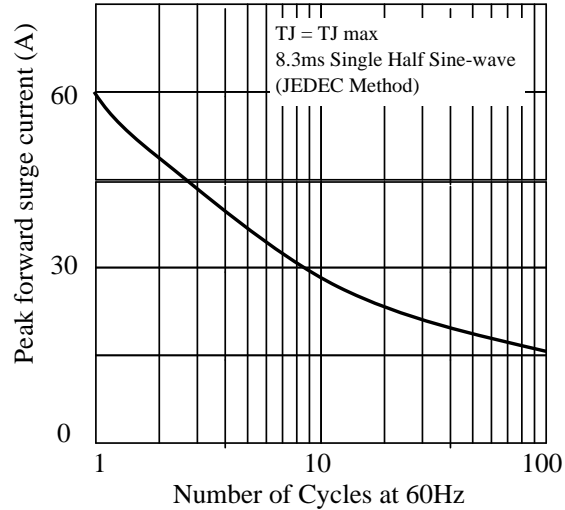


Fig. 3. - Typical Instantaneous Forward Characteristics

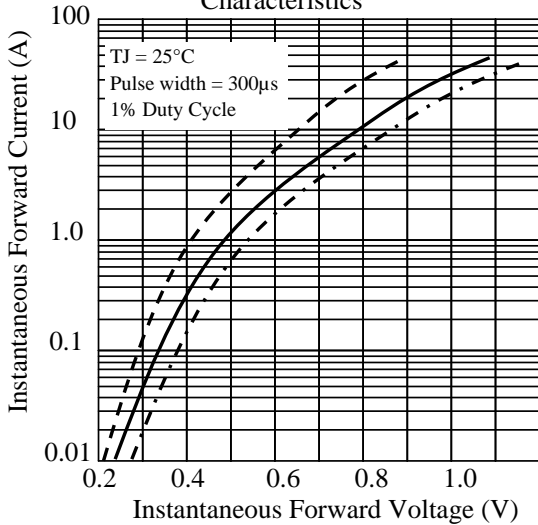


Fig. 4. - Typical Reverse Characteristics

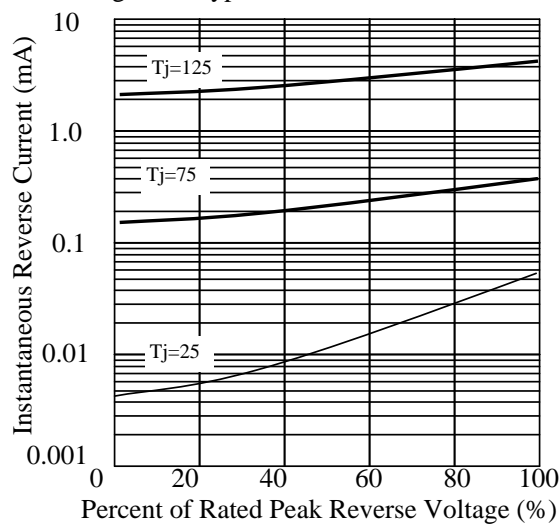


Fig 5. - typical transient thermal impedance

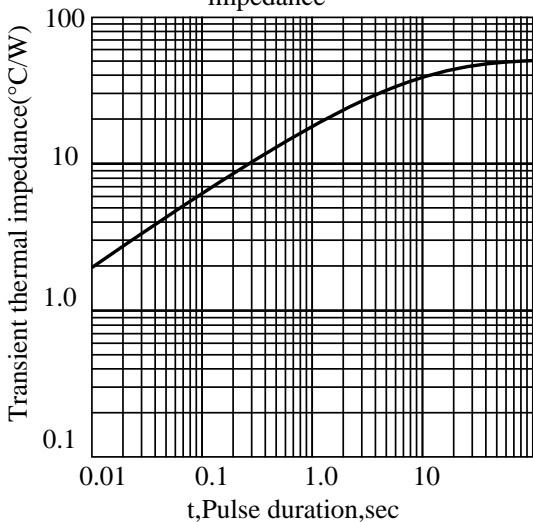
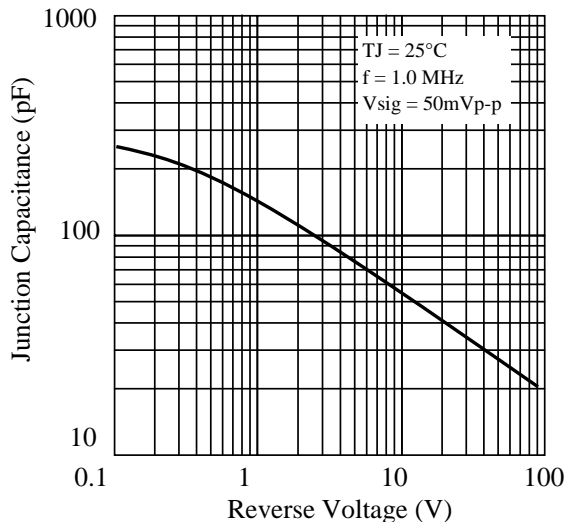
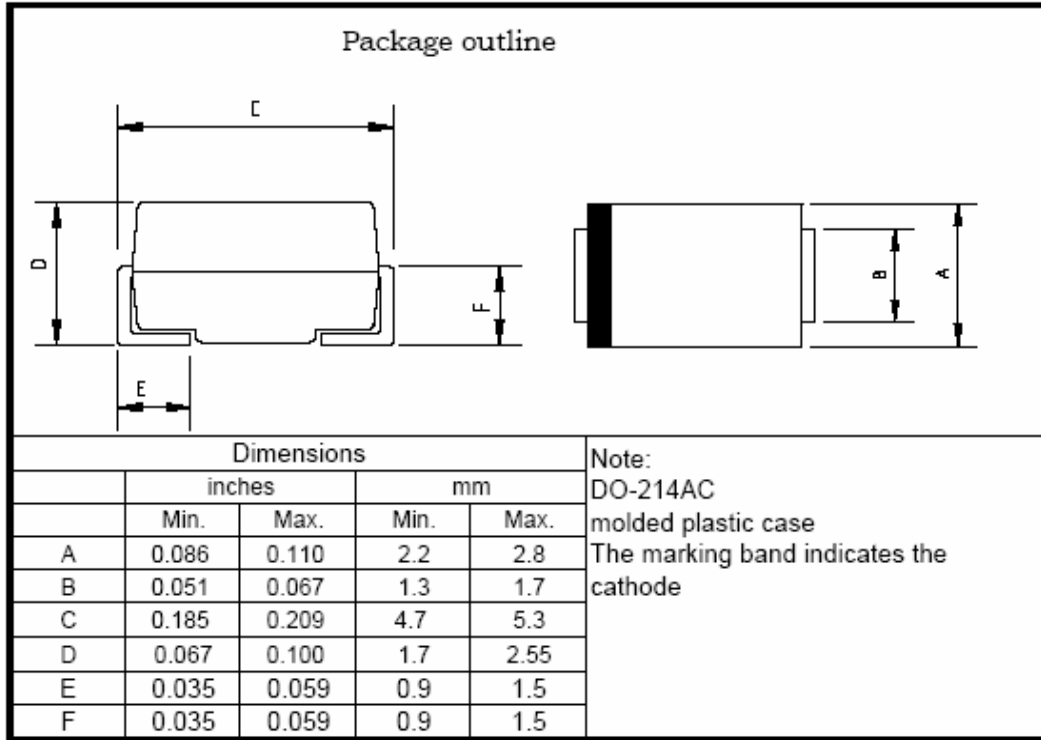


Fig 6. - Typical Junction Capacitance



## SM220A thru SM2100A

### 3. dimension:



## SM220A thru SM2100A

### 4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-3-23
2	结温由125度修改为150度	周杰	2010-9-23