

## Reverse Voltage 20 to 100V

### 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:** 0.0023 oz., 0.065 g

**Handling precaution:** None



We declare that the material of product compliance with ROHS requirements

### 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 RSM voltage	$V_{RSM}$	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 (See fig. 1)	IF(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	150							°C/W
Operating junction and storage temperature range	TJ, TSTG	-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 TA = 25°C at rated DC blocking voltage TA = 100°C	IR	0.5				10.0				mA
Typical junction capacitance at 4.0V, 1MHz	CJ	110								PF

NOTES:

1. 8.0mm<sup>2</sup> (.013mm thick) land areas

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

Fig. 1 - Forward Current Derating Curve

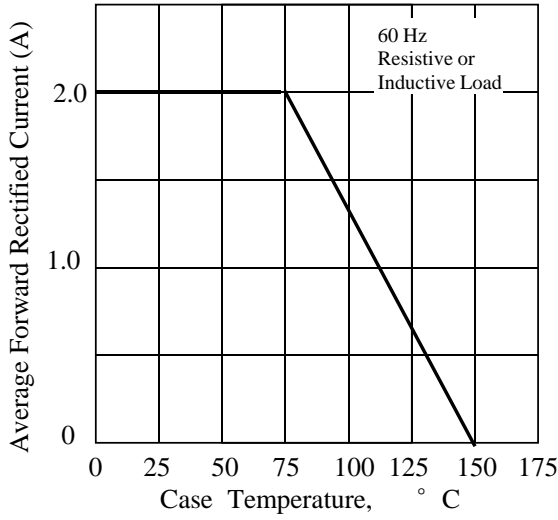


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

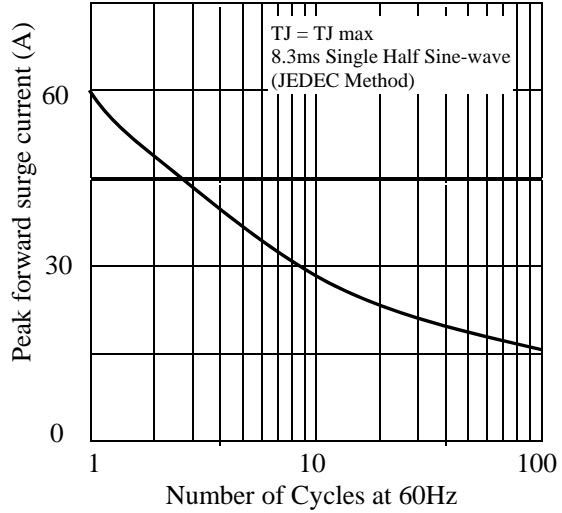


Fig. 3. - Typical Instantaneous Forward Characteristics

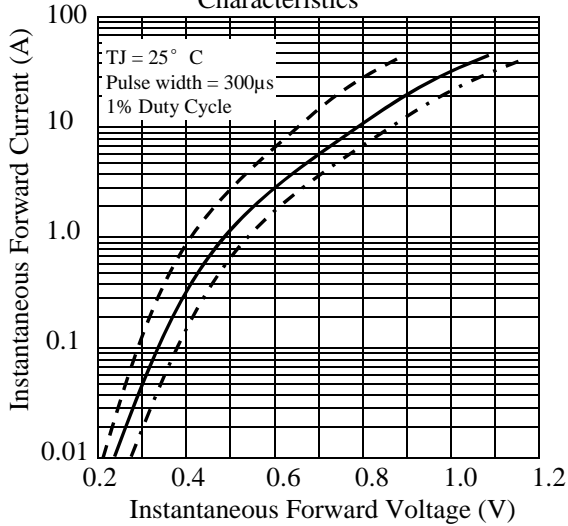


Fig. 4. - Typical Reverse Characteristics

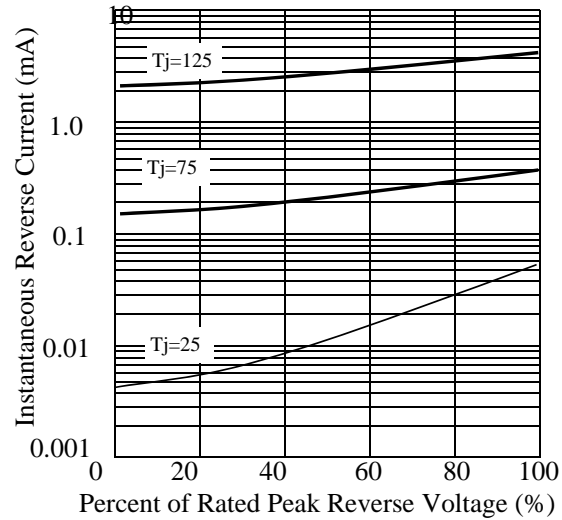


Fig 5. - typical transient thermal impedance

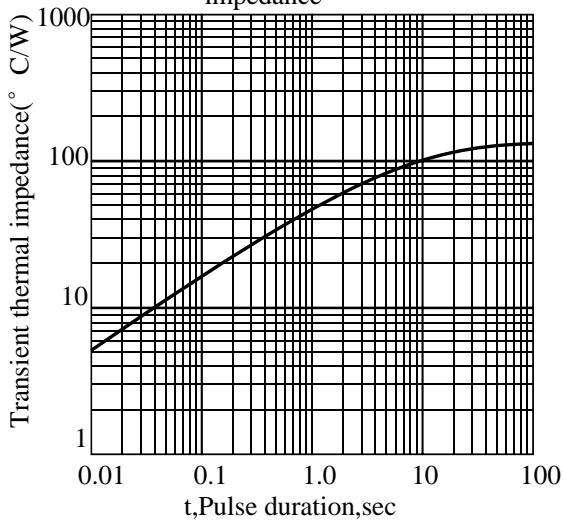
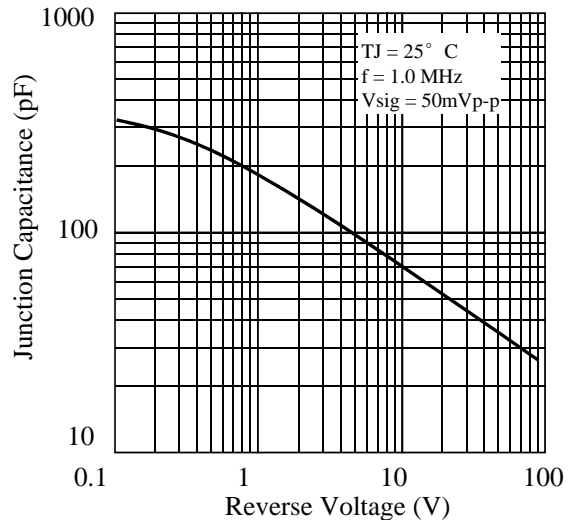


Fig 6. - Typical Junction Capacitance



**3. dimension:**

