

SM2150A

Schottky Barrier Rectifiers Reverse Voltage 150V Forward Current 2.0A

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 body

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 precaution: None

1. Electrical Characteristic

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

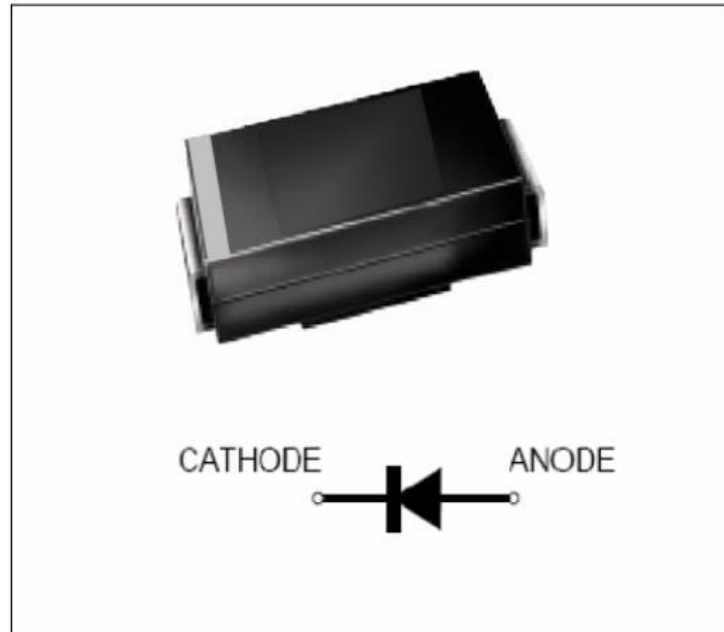
Parameter Symbol	symbol	SM2150A	Unit
device marking code		S215	
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RMS}	105	V
Maximum DC blocking voltage	V_{DC}	150	V
Maximum average forward rectified current 1mm lead length (See fig. 1)	$I_{F(AV)}$	2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	75	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	20	K/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	SM2150A	Unit
Maximum instantaneous forward voltage at 2.0A	V_F	0.82	V
Maximum DC reverse current $T_A = 25^\circ\text{C}$	IR	1.5	μA
at rated DC blocking voltage $T_A = 125^\circ\text{C}$		1.5	mA
Typical junction capacitance at 4.0V, 1MHz	CJ	110	PF

NOTES:

1. Thermal resistance from junction to ambient at 1mm lead length, P.C.B. mounted



We declare that the material of product compliance with ROHS requirements

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2. Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

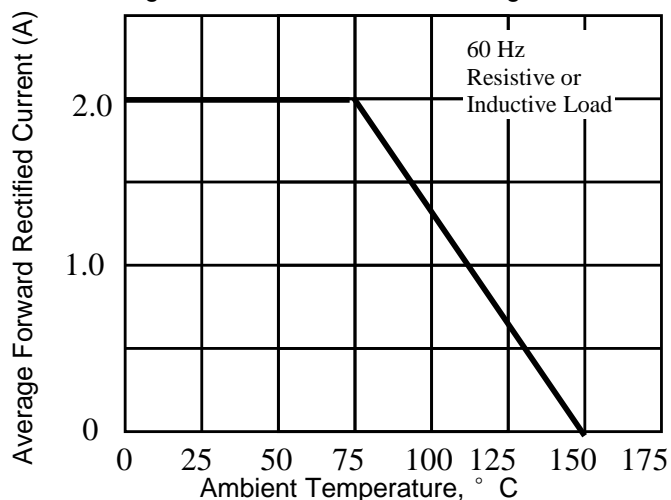


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

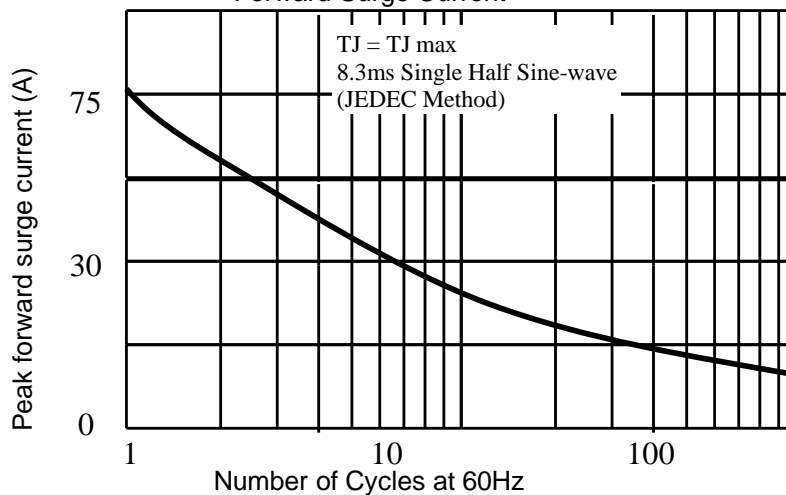


Fig 3. – Typical Instantaneous Forward Characteristics

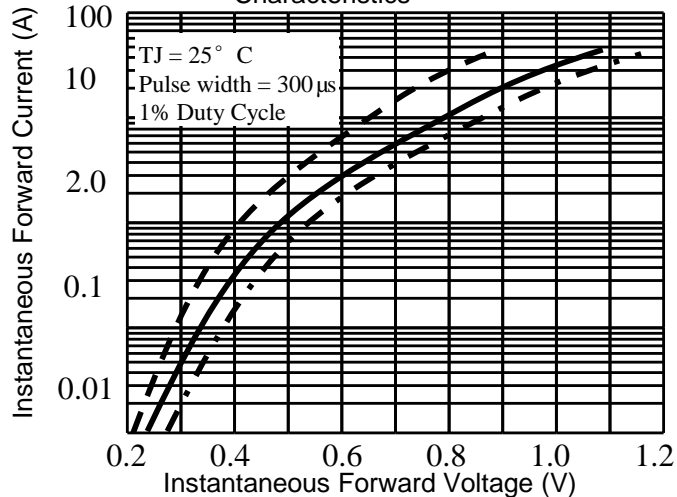


Fig 4. – Typical Reverse Characteristics

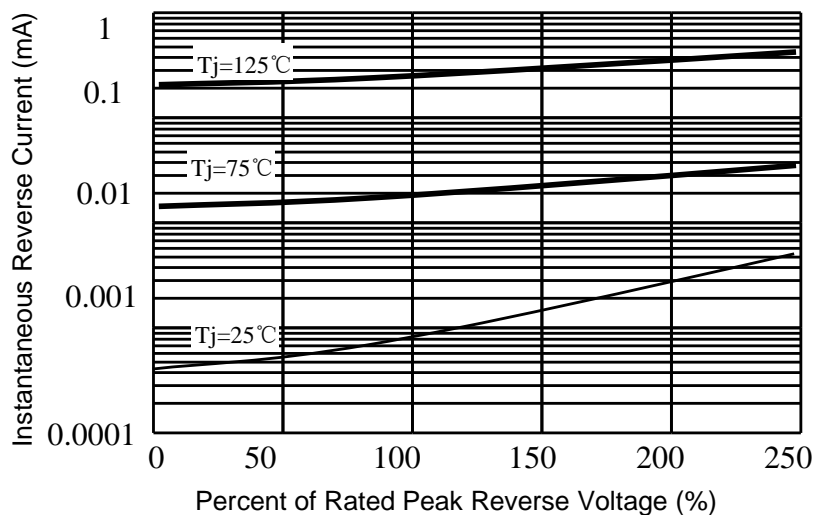


Fig 5. – typical transient thermal impedance

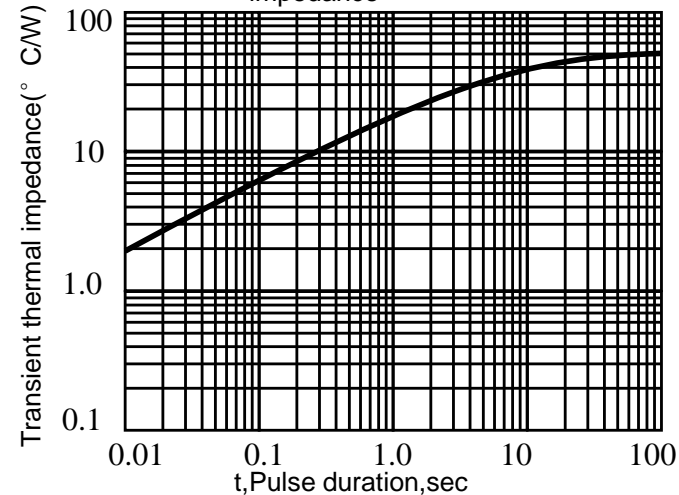
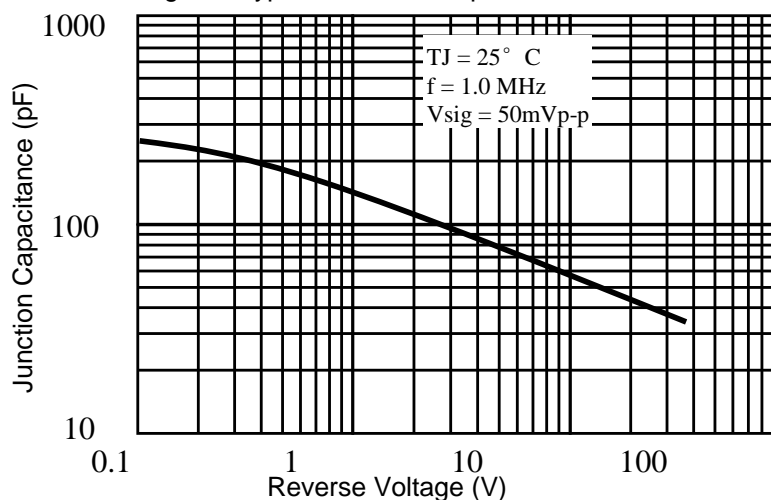
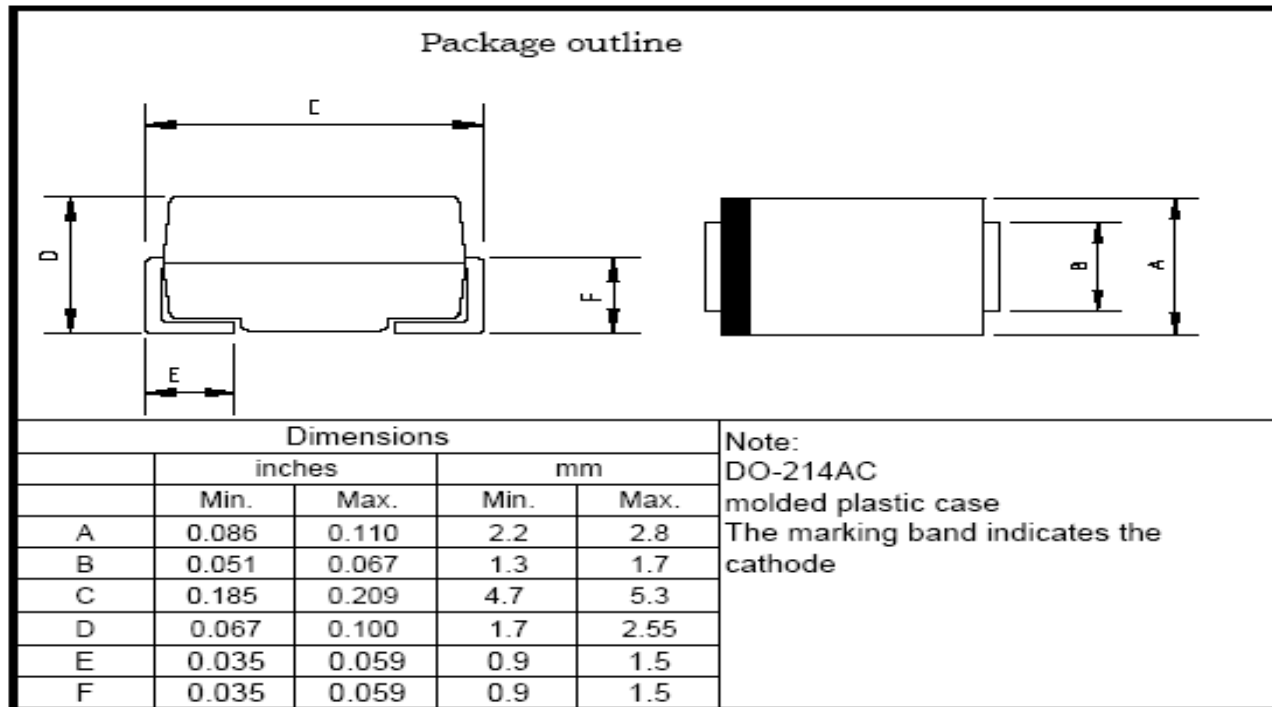


Fig 6. – Typical Junction Capacitance



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3. dimension:



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4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	余波	2010-6-10