

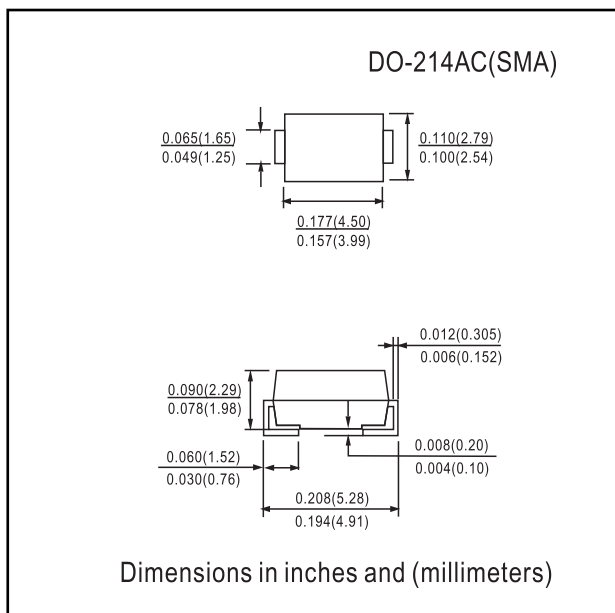


**FEATURES**

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* High temperature metallurgically bonded construction
- \* Capable of meeting environmental standards of MIL-S-19500
- \* Fast switching for high efficiency
- \* Diffused junction
- \* 1.0 A operation at TA=75°C with no thermal runaway
- \* Typical IR less than 1.0μA
- \* High temperature soldering guaranteed: 260°C/10 seconds
- \* We declare that the material of product compliance with RoHS requirements.

**MECHANICAL DATA**

**Case:** JEDEC DO-214AC, molded plastic body  
**Terminals:** Solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.003 oz., 0.085 g  
**Handling precaution:** None



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

Parameter Symbol	symbol	DRS1A	DRS1B	DRS1D	DRS1G	DRS1J	DRS1K	DRS1M	Unit
Marking		S1A	S1B	S1D	S1G	S1J	S1K	S1M	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 75^\circ C$	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25							A
Maximum thermal resistance	$R_{\theta JA}$	65							°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150							°C

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

Parameter Symbol	symbol	DRS1A	DRS1B	DRS1D	DRS1G	DRS1J	DRS1K	DRS1M	Unit
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.3							V
Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$	IR	5.0 200							μA
Typical reverse recovery time (Note 1)	$t_{rr}$	150				250	500		ns
Typical junction capacitance at 4.0V, 1MHz	CJ	15.0							PF

**NOTES:**

1.  $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$



RATINGS AND CHARACTERISTIC CURVES DRS1A THRU DRS1M

Fig. 1 – Forward Current Derating Curve

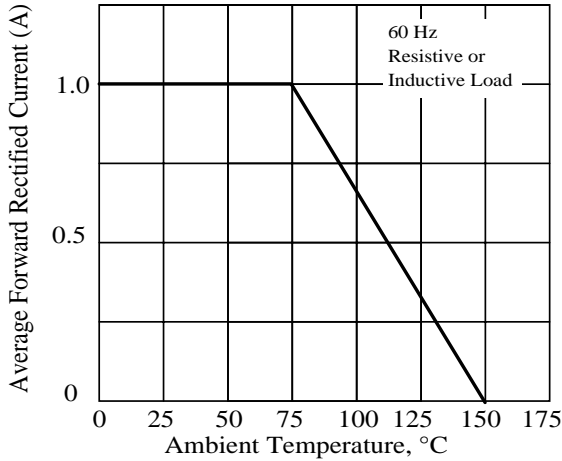


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

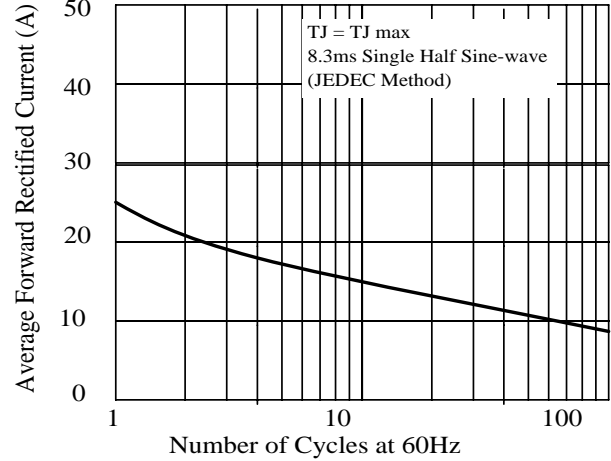


Fig 3. – Typical Instantaneous Forward Characteristics

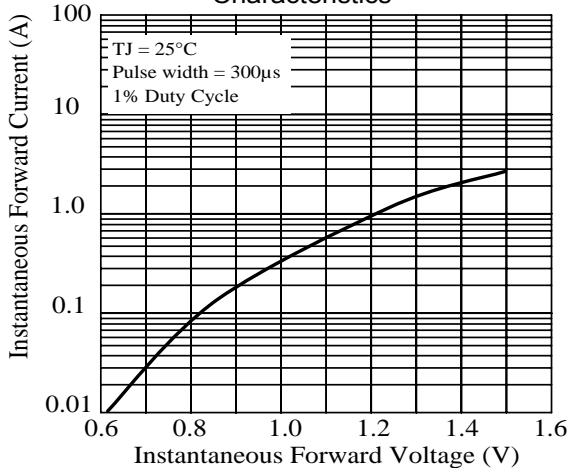


Fig 4. – Typical Reverse Characteristics

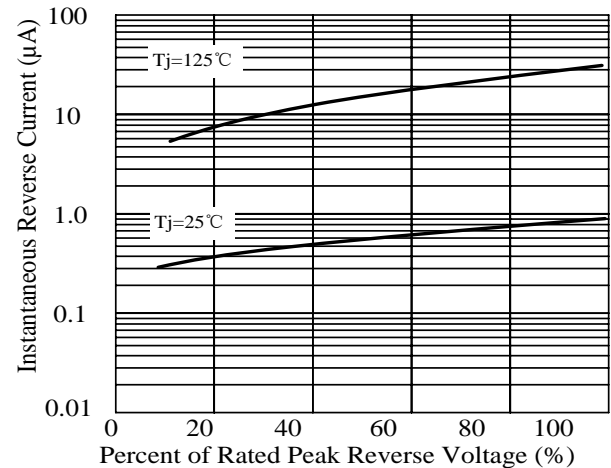


Fig 5. – Typical Junction Capacitance

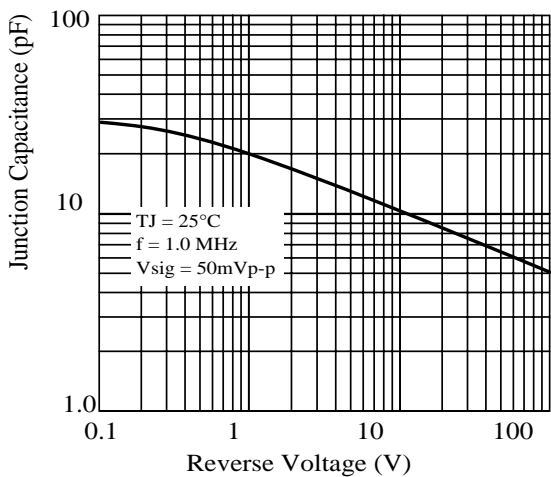


Fig 6. –Transient Thermal Impedance

