

## DRS1A thru DRS1M

### 1.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.

### 2.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

### 3.Electrical Characteristic

**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 <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Maximum average forward rectified current 0.375" (9.5mm) lead length at T <sub>A</sub> = 75°C	I <sub>F(AV)</sub>	1.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25								A
Maximum thermal resistance	R <sub>θJA</sub>	65								°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150								°C

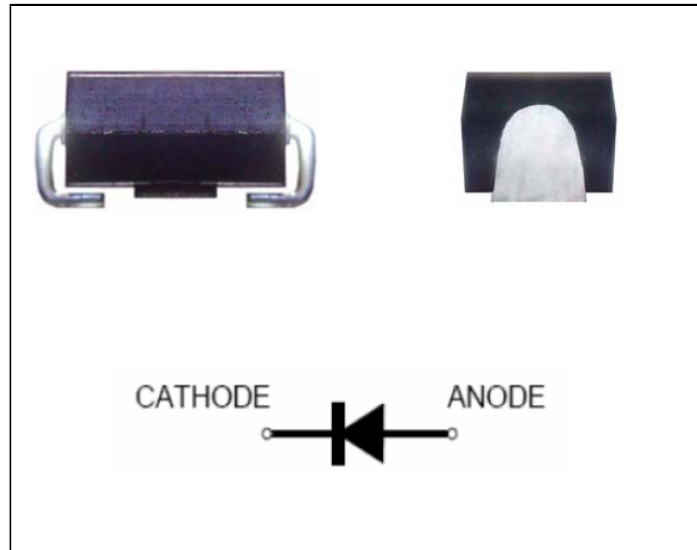
**Electrical Characteristics Ratings** at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	DRS1A	DRS1B	DRS1D	DRS1G	DRS1J	DRS1K	DRS1M	Unit	
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.3								V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 100°C	I <sub>R</sub>	5.0 200								μA
Typical reverse recovery time (Note 1)	t <sub>rr</sub>	150				250	500		ns	
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	15.0								PF

NOTES:

1. I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A

**Surface Mount  
Fast Recovery Rectifiers  
Reverse Voltage 50 to 1000V  
Forward Current 1.0A**



## DRS1A thru DRS1M

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

Fig. 1 – Forward Current Derating Curve

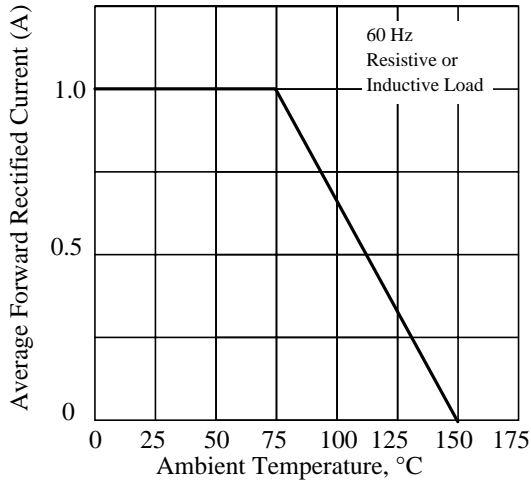


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

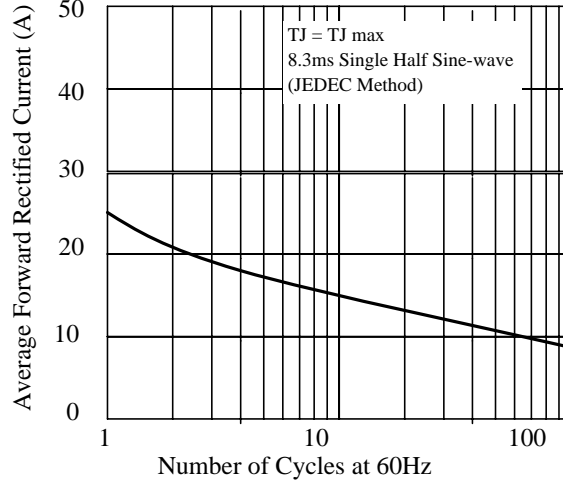


Fig. 3. – Typical Instantaneous Forward Characteristics

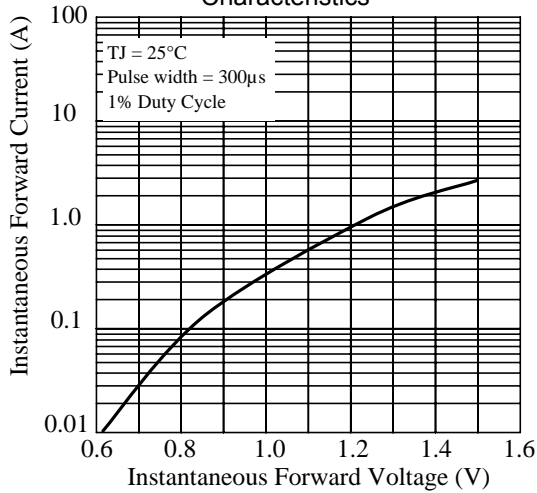


Fig 4. – Typical Reverse Characteristics

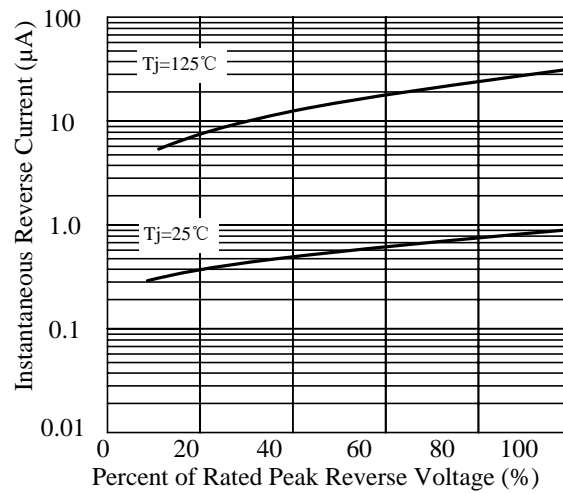


Fig 5. – Typical Junction Capacitance

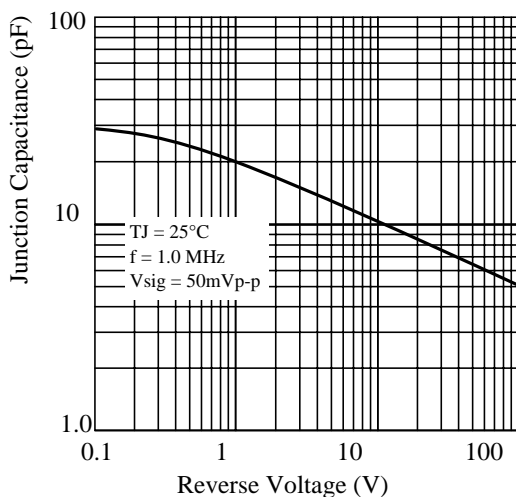
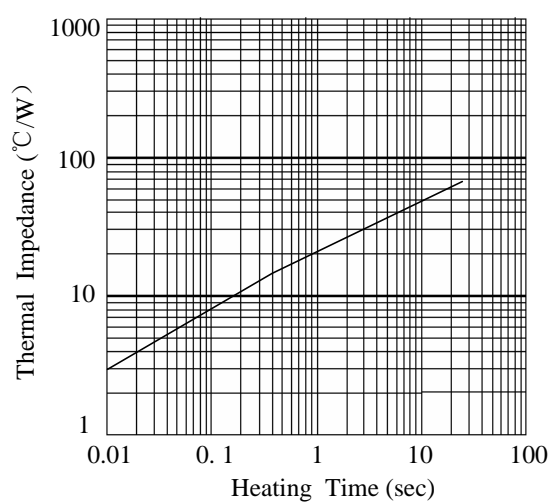
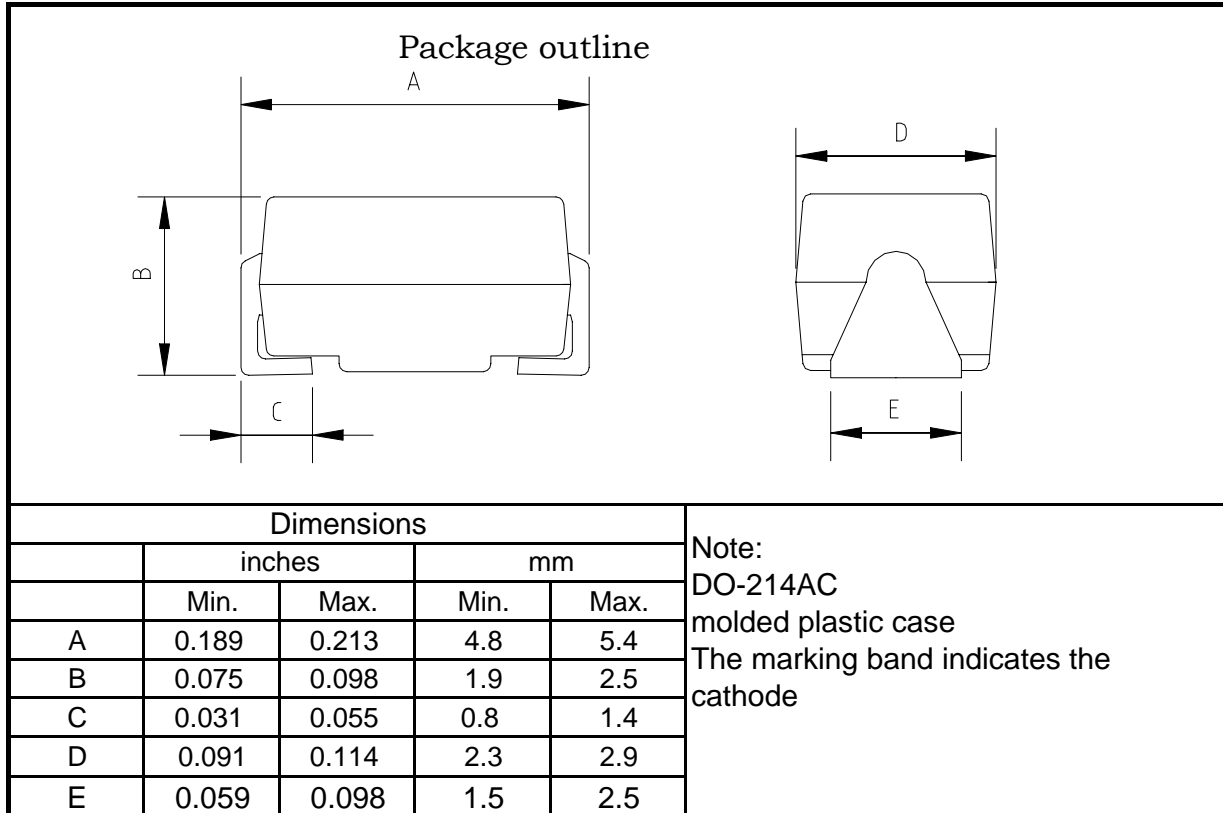


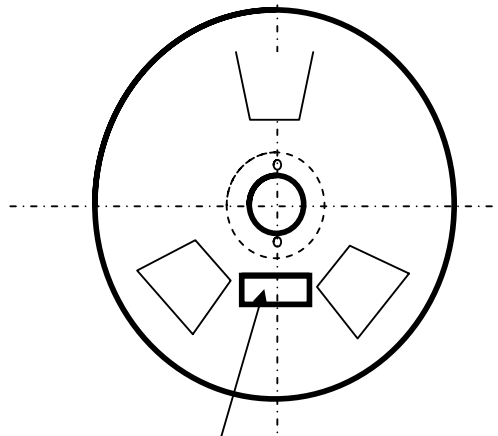
Fig 6. –Transient Thermal Impedance



**5.Package Dimensions in inches and (millimeters)**


## SMA Packing Specification

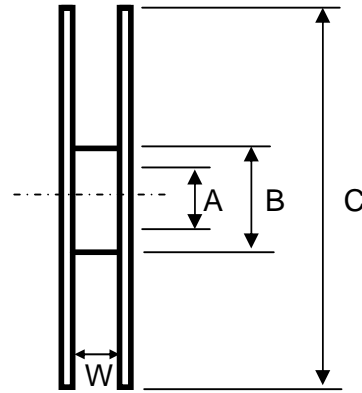
### 1. 卷盘规格/Reel Packing



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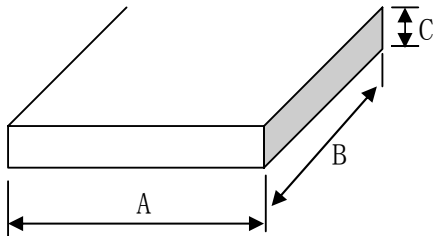
Item	Q'ty/Taping
7"	2K
13"	5K

Unit:mm



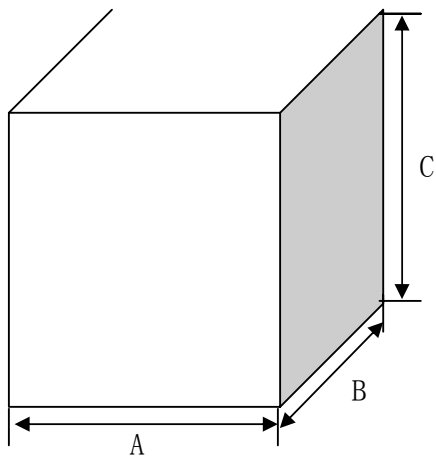
Item	Symbol	Dimension
13" Size	A	13.0±0.2
	B	75.0±0.5
	C	330±1.0
	W	13.2±1.0
7" Size	A	13.0±0.2
	B	54±0.5
	C	177±1.0
	W	13.2±1.0

### 2. 内箱规格/ Inside Box Specification



Item	Symbol	Dimension
Size	A	335±2
	B	335±2
	C	40±1

### 3. 外箱规格/Outer Box Specification



Item	Symbol	Dimension
Size	A	350±2
	B	350±2
	C	345±2