

## 1.0A Surface Mount Fast Recovery Rectifier

### Features

- Low profile surface mounted package
- Fast recovery time for high efficiency
- Glass passivated junction
- Plastic package has underwriters laboratory flammability classification 94 V-0
- High temperature soldering: 250 °C / 10 seconds at terminals
- RoHS compliant



### Mechanical Data

<b>Case:</b>	JEDEC DO-214AC molded plastic
<b>Terminals:</b>	Solder plated solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	cathode end indicated by color band
<b>Weight:</b>	0.002 Ounce, 0.064 gram

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted)

Symbol	Description	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit	Conditions
<b>VRRM</b>	Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>VRMS</b>	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
<b>VDC</b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I<sub>AV</sub></b>	Maximum Average Forward Rectified Current	1.0							A	TA=50°C
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	30							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)

**Note:** Single phase half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

# 1.0A Surface Mount Fast Recovery Rectifier

## RS1A~RS1M

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted)

Symbol	Description	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	Unit	Conditions
$V_F$	Maximum Instantaneous Forward Voltage	1.3							V	$I_F$ at 1.0 A
$I_R$	Maximum DC Reverse Current at Rated DC Blocking Voltage	5							$\mu A$	$T_A = 25^{\circ}C$
		100								$T_A = 125^{\circ}C$
$t_{rr}$	Typical Reverse Recovery Time	150				250	500		nS	$I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A$
$C_J$	Typical Junction Capacitance	10					7		pf	Measured at 1.0 MHz and Applied $V_r = 4.0$ volts.
$R_{\theta-JL}$	Maximum Thermal Resistance	32							$^{\circ}C/W$	Mounted on 0.2" x 0.2" (5mmx5mm) copper pad area
$R_{\theta-JA}$		105								
$T_J, T_{STG}$	Operating Junction and Storage Temperature Range	-55 to 150							$^{\circ}C$	

**Note:** Single phase half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

### Typical Characteristics Curves

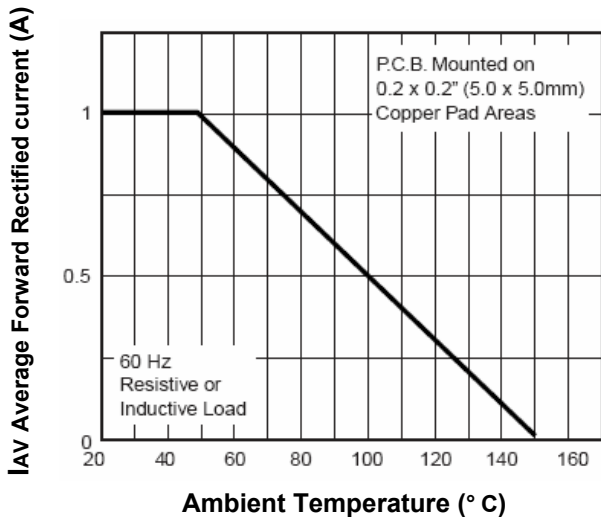


Fig.1- Forward Current Derating Curve

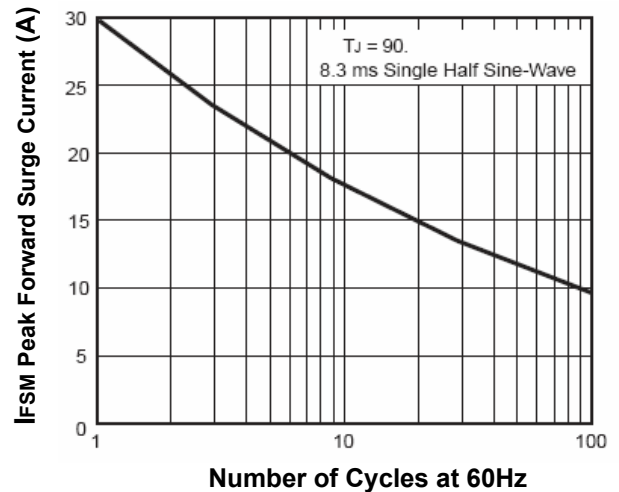


Fig.2- Max. Non-Repetitive Forward Surge Current

# 1.0A Surface Mount Fast Recovery Rectifier

RS1A~RS1M

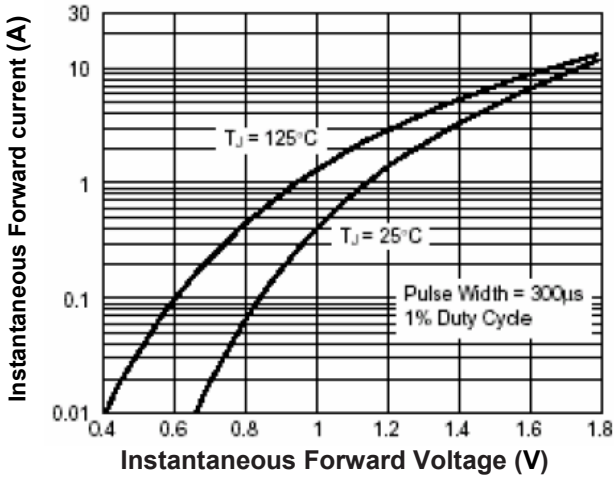


Fig.3- Typical Instantaneous Forward Characteristics

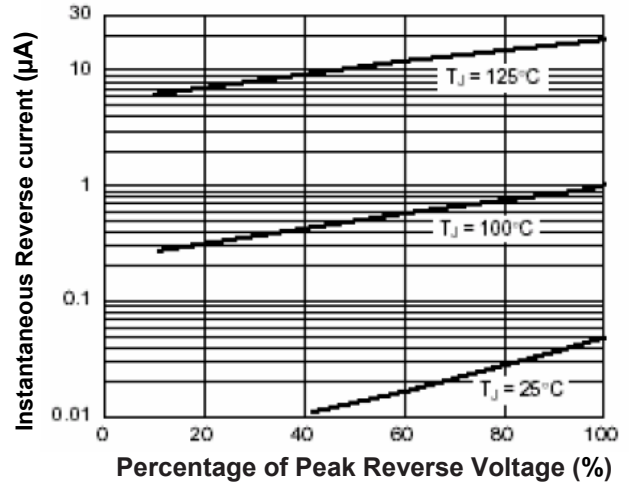


Fig.4- Typical Reverse Characteristics

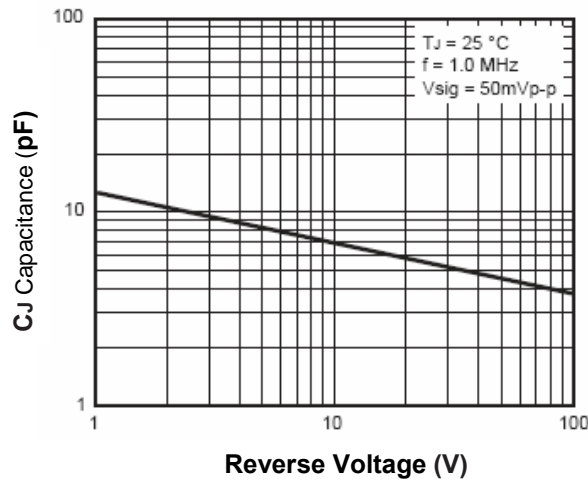
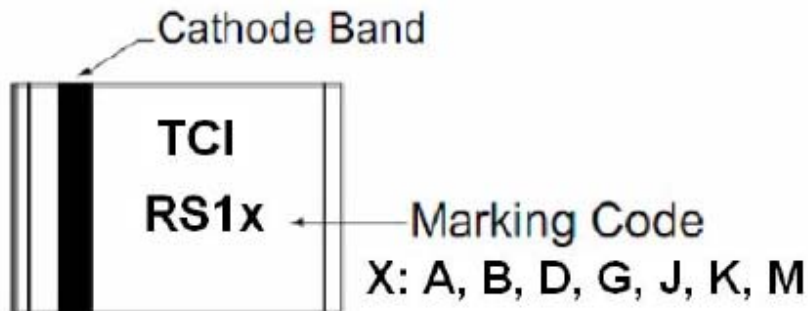


Fig.5- Junction Capacitance

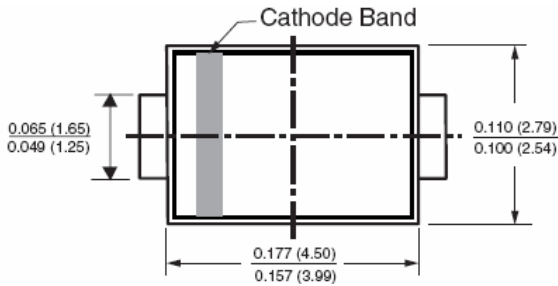
## Marking Information:



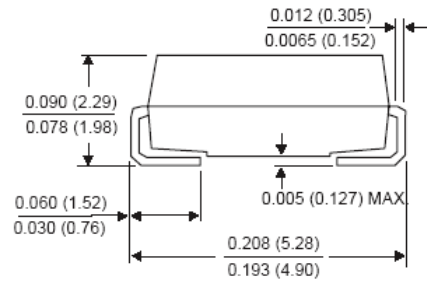
# 1.0A Surface Mount Fast Recovery Rectifier

RS1A~RS1M

## Dimensions in inch (mm)

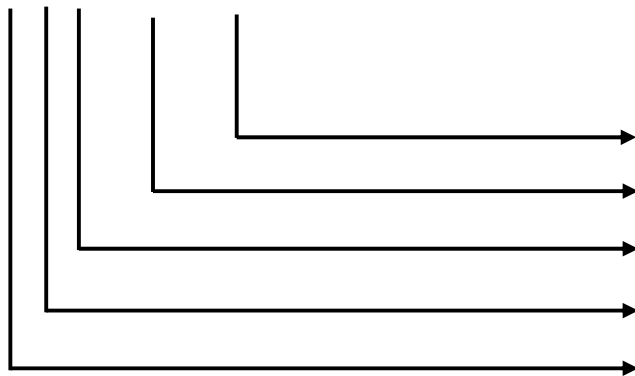


DO214AC  
(SMA)



## Ordering Information

RS 1 X - XX - XX



Packing Code  
TR70: 7" Tape & Reel, RoHS  
TR30: 13" Tape & Reel, RoHS  
Factory Location Code  
Voltage Rating  
Current Rating: 1A  
SMD Fast Recovery Rectifier

# 1.0A Surface Mount Fast Recovery Rectifier

---

RS1A~RS1M

## How to contact us:

### US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 247-2232 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

### TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.  
42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

### TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

### TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

CROSS REGION PLAZA, 899 LINGLING ROAD, SUITE 18C, SHANGHAI, 200030, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931