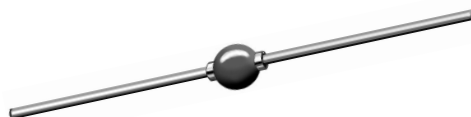


Fast Sinterglass Switching Rectifier

Features

- High temperature metallurgically bonded construction
- Hermetically sealed package
- Cavity-free glass passivated junction
- 1.0 ampere operation at $T_{amb} = 55\text{ }^{\circ}\text{C}$ with no thermal runaway
- Typical I_R less than $0.1\text{ }\mu\text{A}$
- Capable of meeting environmental standards of MIL-S-19500
- Fast switching for high efficiency
- High temperature soldering guaranteed: $350\text{ }^{\circ}\text{C}/10\text{ seconds}$, $0.375\text{ }''$ (9.5 mm) lead length, 5 lbs. (2.3 kg) tension



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Mechanical Data

Case: JEDEC DO-204AP Solid glass body

Terminals: Solder plated axial leads, solderable per MILSTD- 750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 560 mg

Parts Table

Part	Type differentiation	Package
RG2A	$V_{RRM} = 50\text{ V}$	DO-204AP (G1)
RG2B	$V_{RRM} = 100\text{ V}$	DO-204AP (G1)
RG2D	$V_{RRM} = 200\text{ V}$	DO-204AP (G1)
RG2G	$V_{RRM} = 400\text{ V}$	DO-204AP (G1)
RG2J	$V_{RRM} = 600\text{ V}$	DO-204AP (G1)
RG2K	$V_{RRM} = 800\text{ V}$	DO-204AP (G1)
RG2M	$V_{RRM} = 1000\text{ V}$	DO-204AP (G1)

Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Sub type	Symbol	Value	Unit
Maximum repetitive peak reverse voltage		RG2A	V_{RRM}	50	V
		RG2B	V_{RRM}	100	V
		RG2D	V_{RRM}	200	V
		RG2G	V_{RRM}	400	V
		RG2J	V_{RRM}	600	V
		RG2K	V_{RRM}	800	V
		RG2M	V_{RRM}	1000	V

RG2A to RG2M



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Parameter	Test condition	Sub type	Symbol	Value	Unit
Maximum RMS voltage		RG2A	V_{RMS}	35	V
		RG2B	V_{RMS}	70	V
		RG2D	V_{RMS}	140	V
		RG2G	V_{RMS}	280	V
		RG2J	V_{RMS}	420	V
		RG2K	V_{RMS}	560	V
		RG2M	V_{RMS}	700	V
Maximum DC blocking voltage		RG2A	V_{DC}	50	V
		RG2B	V_{DC}	100	V
		RG2D	V_{DC}	200	V
		RG2G	V_{DC}	400	V
		RG2J	V_{DC}	600	V
		RG2K	V_{DC}	800	V
		RG2M	V_{DC}	1000	V
Maximum average forward rectified current	0.375 " (9.5 mm) lead length at $T_{amb} = 55\text{ }^{\circ}\text{C}$		$I_{F(AV)}$	2.0	A
Peak forward surge current	8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	50	A
Maximum full load reverse current	full cycle average 0.375 " (9.5 mm) lead length at $T_{amb} = 25\text{ }^{\circ}\text{C}$		$I_{R(AV)}$	1.0	μA
	full cycle average 0.375 " (9.5 mm) lead length at $T_{amb} = 100\text{ }^{\circ}\text{C}$		$I_{R(AV)}$	100	μA

Maximum Thermal Resistance

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Sub type	Symbol	Value	Unit
Typical thermal resistance ¹⁾			R_{θ}	55	$^{\circ}\text{C}$
Operating junction and storage temperature range			T_J, T_{STG}	- 65 to + 175	$^{\circ}\text{C}$

¹⁾ Thermal resistance from junction to ambient at 0.375 " (9.5 mm) lead length, P.C.B. mounted

Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Sub type	Symbol	Min	Typ.	Max	Unit
Maximum instantaneous forward voltage	$I_F = 2\text{ A}$		V_F			1.3	V
Maximum DC reverse current	at rated DC blocking voltage		I_R			5.0	μA
Maximum reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$	RG1A	t_{rr}			150	ns
	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$	RG1B	t_{rr}			150	ns
	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$	RG1D	t_{rr}			150	ns
	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$	RG1G	t_{rr}			150	ns
	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$	RG1J	t_{rr}			200	ns
	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$	RG1K	t_{rr}			250	ns
	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$	RG1M	t_{rr}			500	ns
Typical junction capacitance	$V_R = 4.0\text{ V}, f = 1\text{ MHz}$		C_J		15		pF

Typical Characteristics ($T_{amb} = 25^{\circ}\text{C}$ unless otherwise specified)

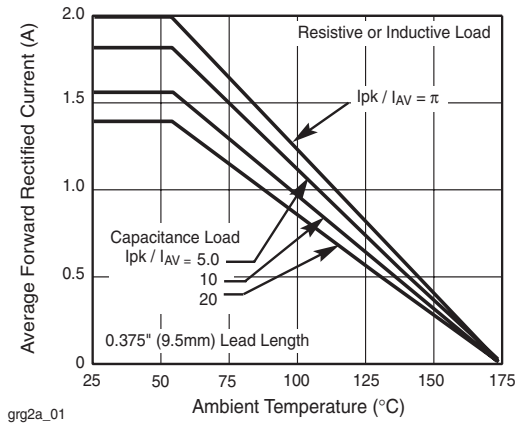


Figure 1. Forward Current Derating Curve

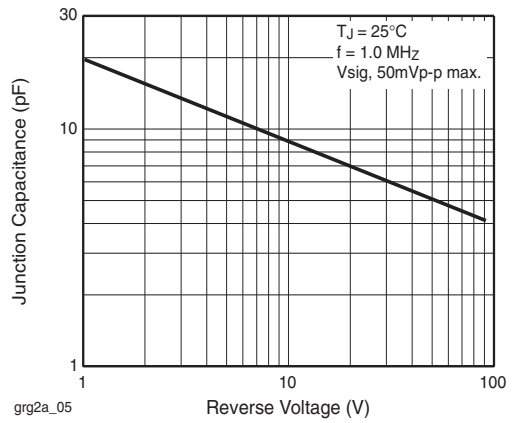


Figure 4. Typical Junction Capacitance

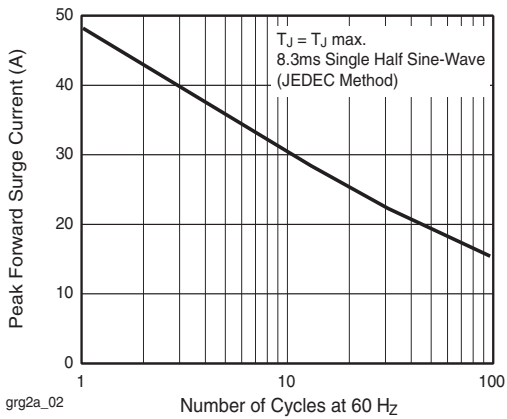


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

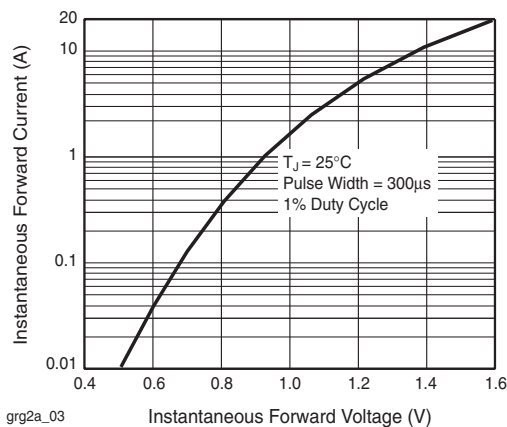


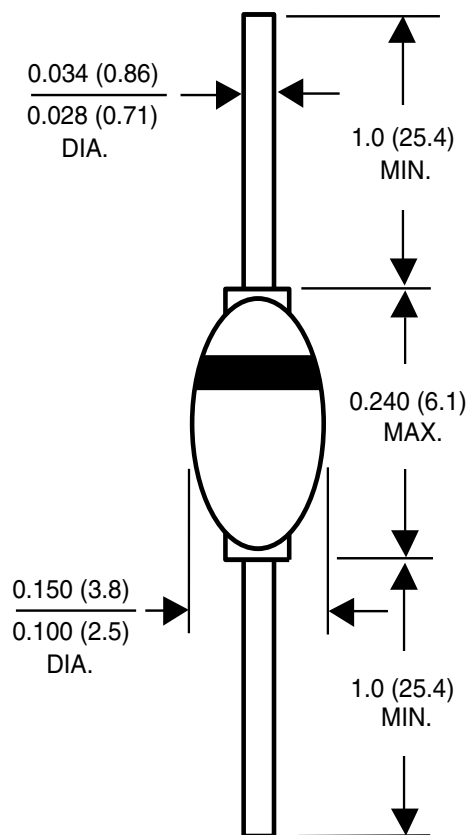
Figure 3. Typical Instantaneous Forward Characteristics

RG2A to RG2M

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Package Dimensions in mm



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