



PS106RSG

FAST SWITCHING PLASTIC RECTIFIER

Voltage

600 V

Current

1 A

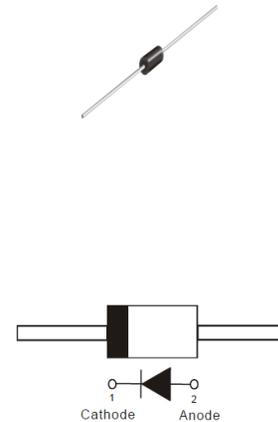
Features

- Glass passivated chip junction
- Fast reverse recovery time
- Low forward voltage drop
- Low switching losses, high efficiency
- High forward surge capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: A-405 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.007 ounces, 0.212 grams

A-405



Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Maximum Rms Voltage	V_{RMS}	420	V
Maximum Dc Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	30	A
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$	C_J	6	pF
Typical Thermal Resistance	$R_{\theta JA}^{(1)}$	150	$^\circ\text{C/W}$
	$R_{\theta JL}^{(2)}$	42	
Operating Junction Temperature Range	T_J	-55~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$



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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 0.5\text{ A}, T_J = 25^\circ\text{C}$	-	1	-	V
		$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	-	1.3	
		$I_F = 0.5\text{ A}, T_J = 125^\circ\text{C}$	-	0.88	-	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.99	-	
Reverse Current	I_R	$V_R = 600\text{ V}, T_J = 25^\circ\text{C}$	-	-	5	uA
		$V_R = 600\text{ V}, T_J = 125^\circ\text{C}$	-	15	-	
Reverse Recovery Time	T_{RR}	$I_F = 0.5\text{ A}, I_R = 1\text{ A},$ $I_{RR} = 0.25\text{ A}, T_J = 25^\circ\text{C}$	-	-	250	ns

NOTES:

1. The testing condition of the thermal resistance (junction to ambient) is based on 10mm lead length between mini copper pads.
2. The testing condition of the thermal resistance (junction to lead) is based on 10mm lead length between two 10cm x 10cm copper pads.



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TYPICAL CHARACTERISTIC CURVES

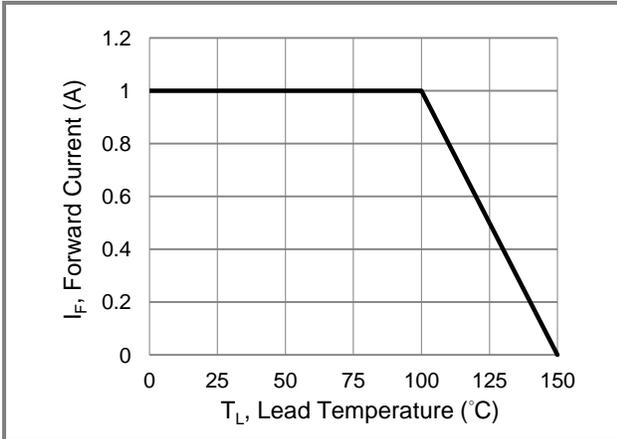


Fig.1 Forward Current Derating Curve

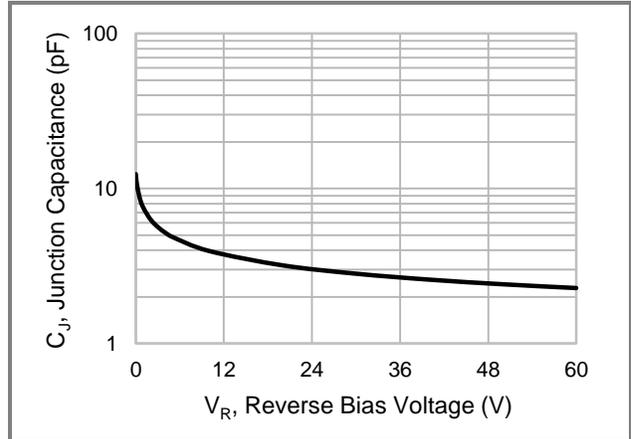


Fig.2 Typical Junction Capacitance

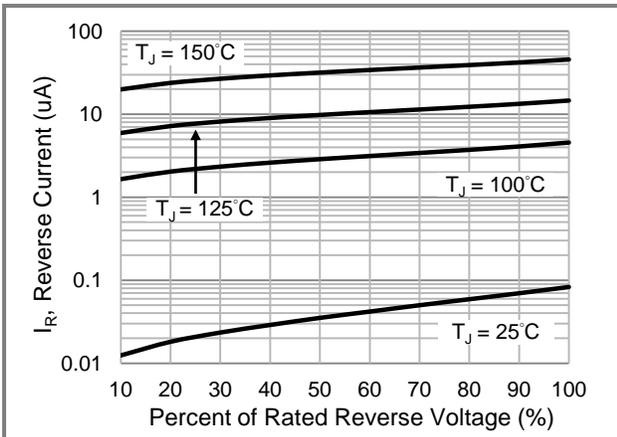


Fig.3 Typical Reverse Characteristics

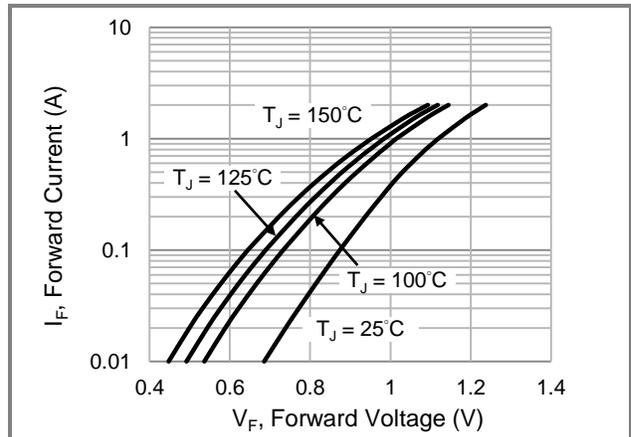


Fig.4 Typical Forward Characteristics

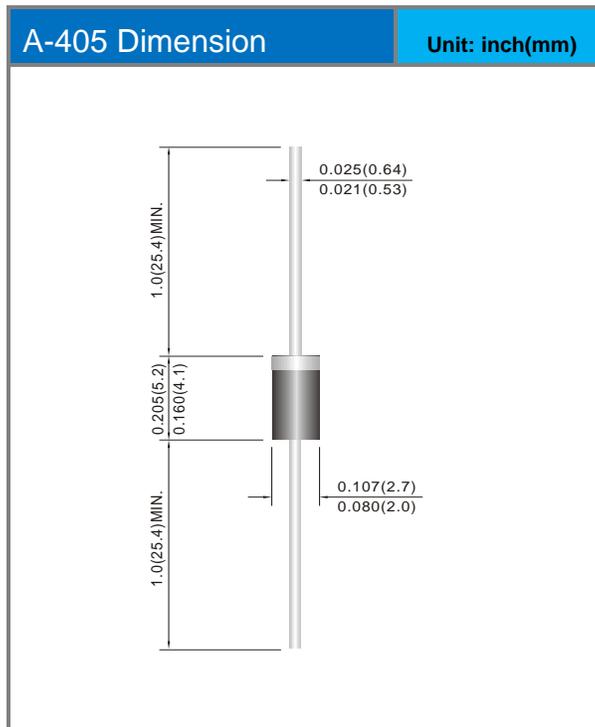


PS106RSG

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PS106RSG_AY_00001	A-405	5K pcs / Ammo	P106RSG	Halogen free

Packaging Information & Mounting Pad Layout





PS106RSG

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