

GSEGP10A thru GSEGP10G

Glass Passivated Ultrafast Rectifiers
 Reverse Voltage 50V to 400V Forward Current 1.0A

Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- For general purpose applications
- Moisture sensitivity: level 1, per J-STD-020
- For fast switching and low logic level applications
- High temperature soldering guaranteed: 260°C/10 seconds



DO-41 (DO-204AL)

Applications

Small battery charger, power supplies

Absolute Maximum Ratings and Electrical Characteristics

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

Parameter	Symbol	GSEGP 10A	GSEGP 10B	GSEGP 10C	GSEGP 10D	GSEGP 10F	GSEGP 10G	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	V
Maximum Average Forward Output Current @ $T_A=25^\circ\text{C}$	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current 8.3mS Single Half Sine-Wave Superimposed on Rated Load per Diode	I_{FSM}	30						A
Forward Drop Voltage at 1.0A	V_F	0.95				1.25		V
Reverse Leakage Current @ V_R	$T_A=25^\circ\text{C}$	5.0						uA
	$T_A=125^\circ\text{C}$	100						
Maximum Reverse Reverse Recovery Time at $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$	T_{rr}	50						nS
Typical Thermal Resistance Junction to Ambient ¹	$R_{\theta JA}$	50						$^\circ\text{C/W}$
Typical Junction Capacitance ²	C_J	22				15		pF
Operating Junction Temperature Range	T_J	-55 To + 150						$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 To + 150						$^\circ\text{C}$

Note:

1. Thermal Resistance at .375 (9.5mm) Lead Length
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC

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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

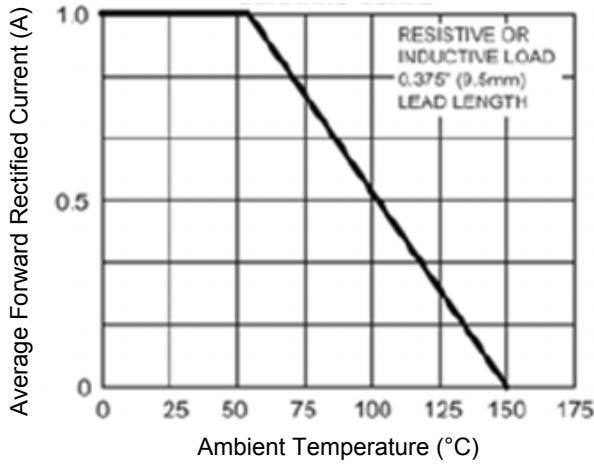


Figure 1. Maximum Forward Current Derating Curve

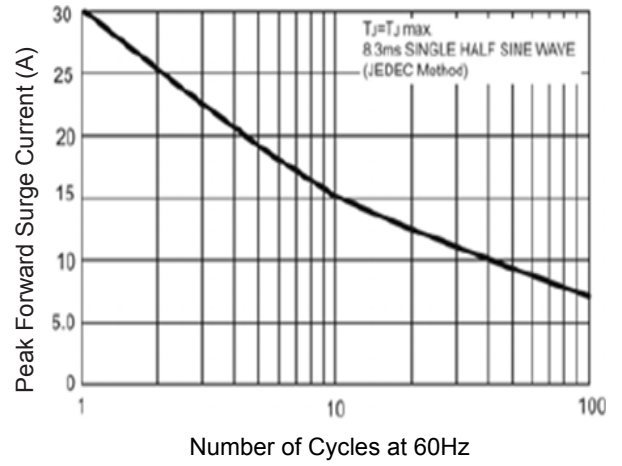


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

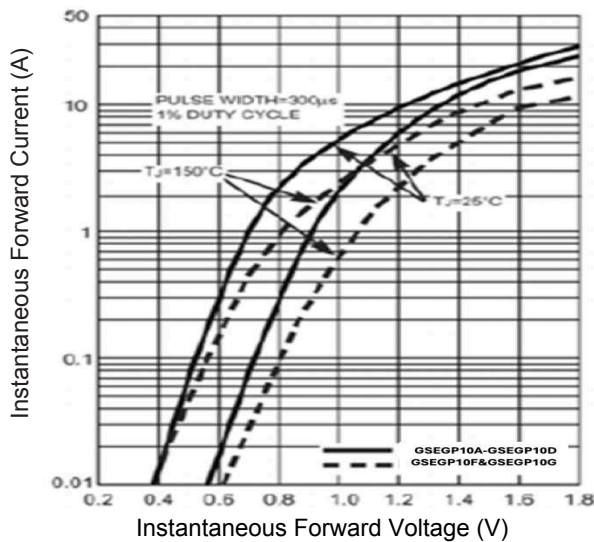


Figure 3. Typical Instantaneous Forward Characteristics

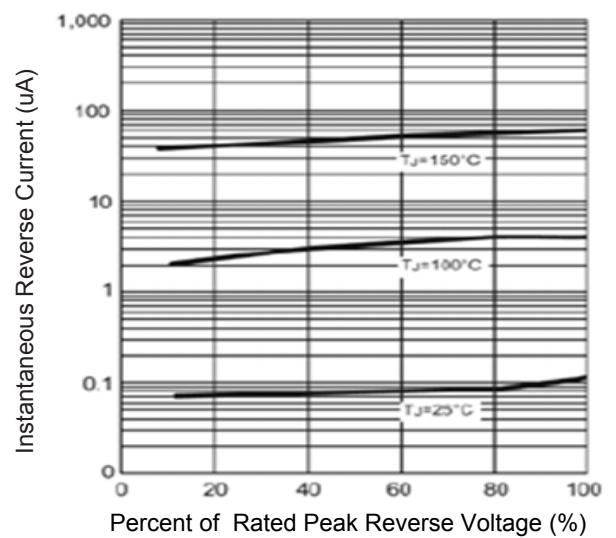


Figure 4. Typical Reverse Characteristics

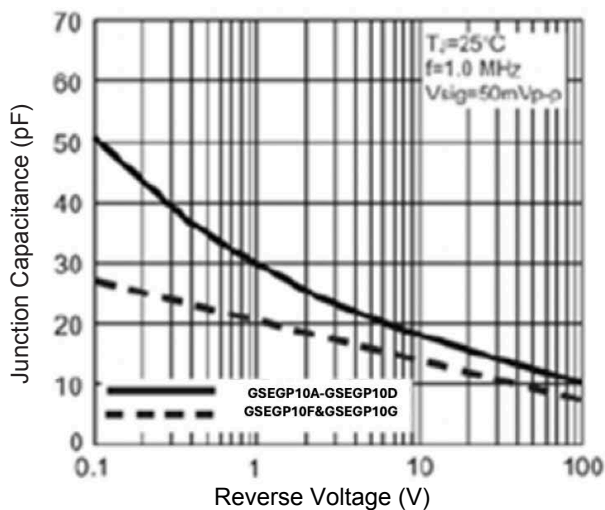


Figure 5. Typical Junction Capacitance

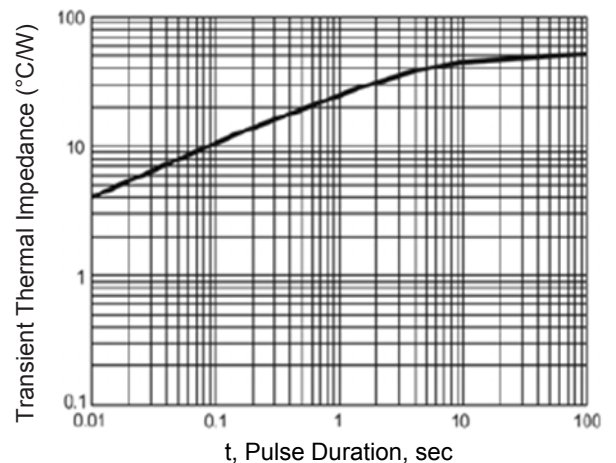
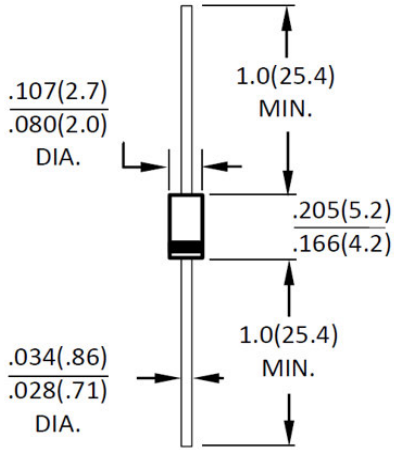


Figure 6. Typical Transient Thermal Impedance

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Package Outline Dimensions DO-41(DO-204AL)



in inches (millimeters)