

Features

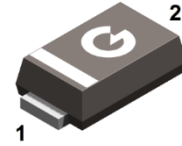
- High forward surge current capability
- Low forward voltage drop
- Low-profile SMD ideal for automated manufacturing
- RoHS compliant with Halogen-free

HF

Mechanical Data

- Case: SOD-323HE
- Molding compound: UL flammability classification rating 94-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

Cathode Anode
1 2



SOD-323HE

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
E10JHE	SOD-323HE	4000 pcs / Tape & Reel	E10J

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	600	V
RMS Reverse Voltage	V _{RMS}	420	V
DC Blocking Voltage	V _{DC}	600	V
Average Forward Output Current	I _{F(AV)}	1.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I _{FSM}	10	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air *1	R _{θJA}	88	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	35	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	22	°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 2\mu\text{A}$	600	-	-	V
Forward Voltage *2	V_F	$I_F = 0.5\text{A}$	-	-	1.7	V
Maximum Peak Reverse Current *3	I_R	Rated V_R , $T_J = 25^\circ\text{C}$	-	-	5	μA
		Rated V_R , $T_J = 125^\circ\text{C}$	-	-	0.2	mA
Reverse Recovery Time	t_{rr}	$I_F = 0.5\text{A}$, $I_{rr} = 0.25\text{A}$, $I_R = 1\text{A}$	-	-	35	ns
Diode capacitance	C_J	$V_R = 4\text{V}$, $f = 1\text{MHz}$	-	3.8	-	pF

Notes:

1. The data tested by surface mounted on p.c.b. with 22 mm x 17 mm x 1 mm copper pad area
2. The data tested by pulsed, pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 1\%$
3. The data tested by pulsed, pulse width $\leq 40\text{ms}$

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

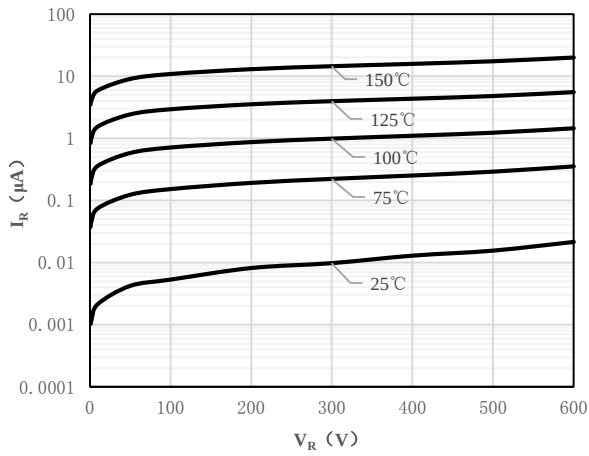


Fig 1 Typical Reverse Characteristic

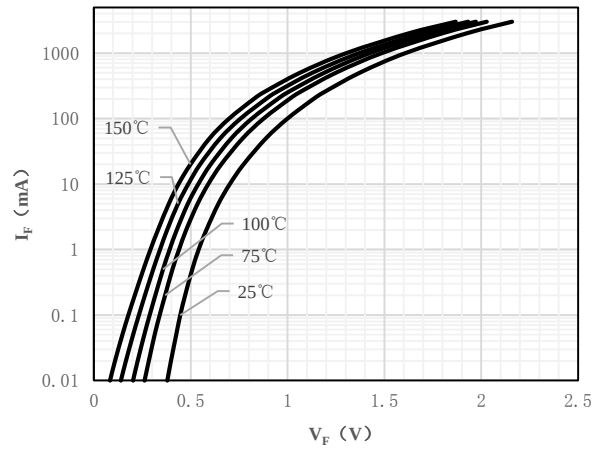


Fig 2 Typical Forward Characteristics

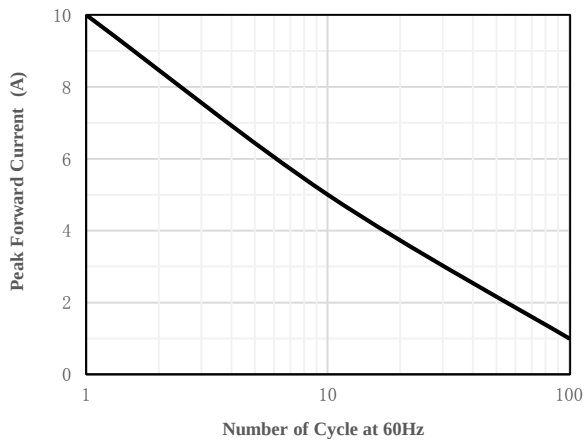


Fig 3 Surge Current Derating Curve

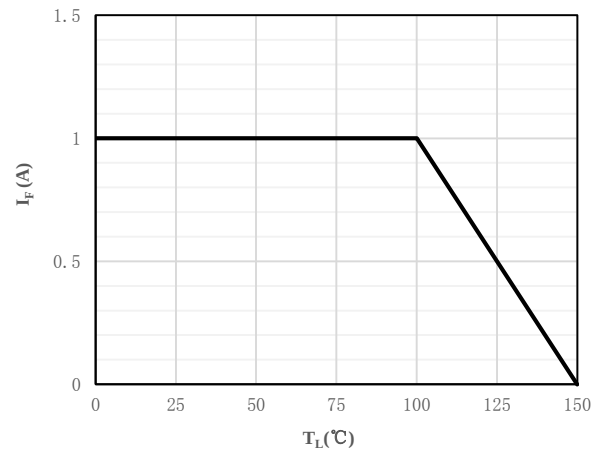


Fig 4 Forward Current Derating Curve

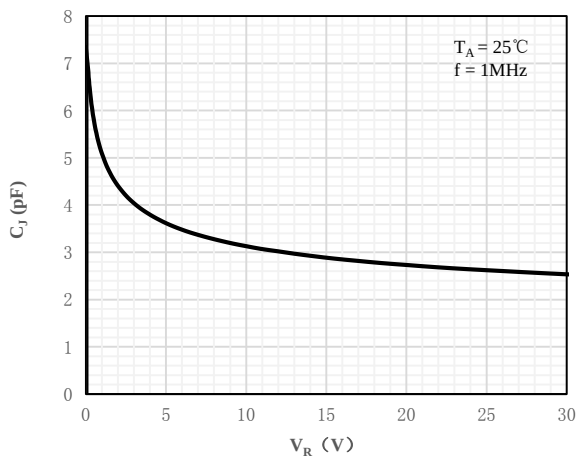
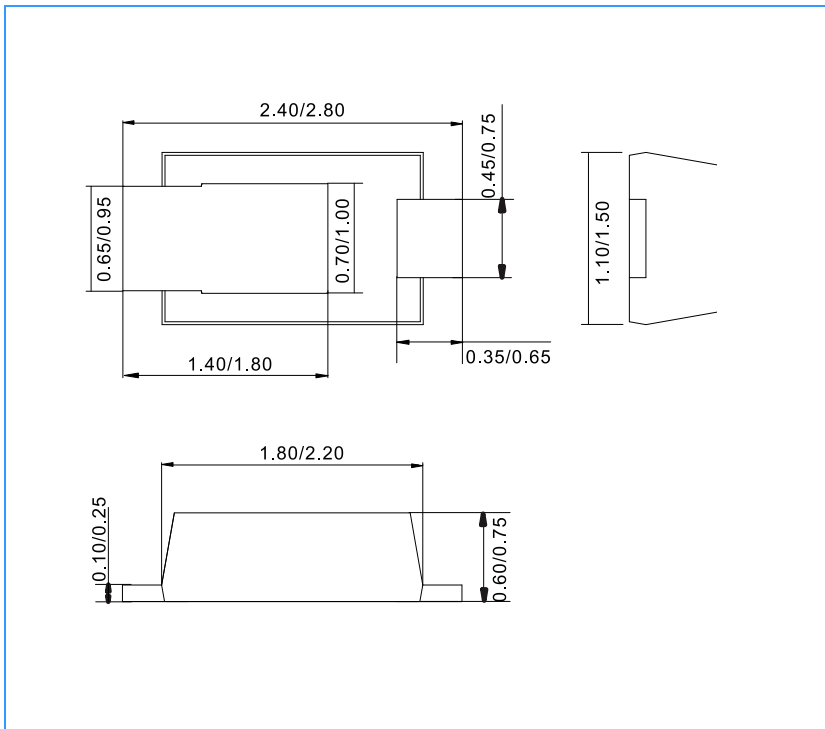


Fig 5 Capacitance vs. Reverse Voltage

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)

