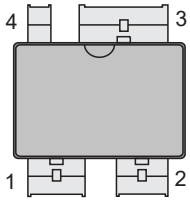
HSB25K

23-Nov-2024

Glass Passivated Bridge Rectifiers



HSB Package

PINNING

PIN	DESCRIPTION
1	Input Pin（~）
2	Input Pin（~）
3	Output Anode（+）
4	Output Cathode（-）

Features

- Glass Passivated Chip Junction
- Reverse Voltage - 1000 V
- Forward Current - 25A
- High Surge Current Capability
- Designed For Surface Mount Application

Mechanical Data

- Case: HSB
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Marked on Body
- Mounting Position: Any

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	HSB25K	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Rectified Output Current	I_o	25.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	270	A
I^2t rating for fusing (1ms< t < 8.3 ms)	I^2t	302	A^2S
Maximum Forward Voltage at 12.5 A	V_F	1.0	V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	I_R	5 500	μA
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JC}$	25.0 5	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

RATINGS AND CHARACTERISTICS CURVES (TA = 25 ˚C unless otherwise noted)

Fig.1 Current Derating, Case

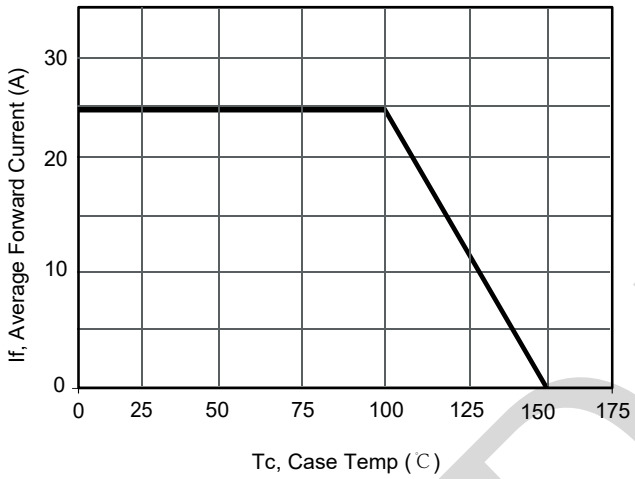


Fig.2 Maximum Non-Repetitive Peak Forward Surage Current

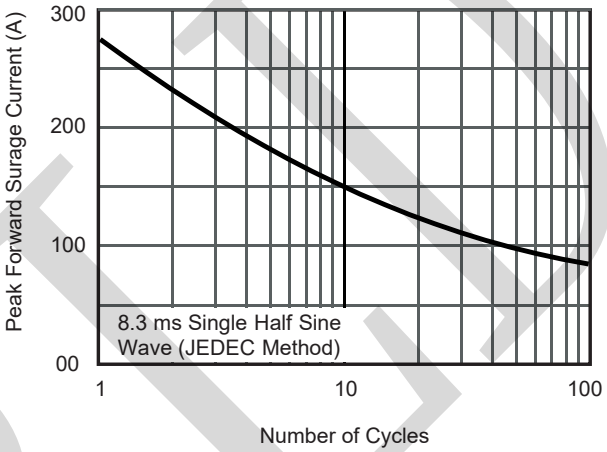


Fig.3 Typical Forward Voltage

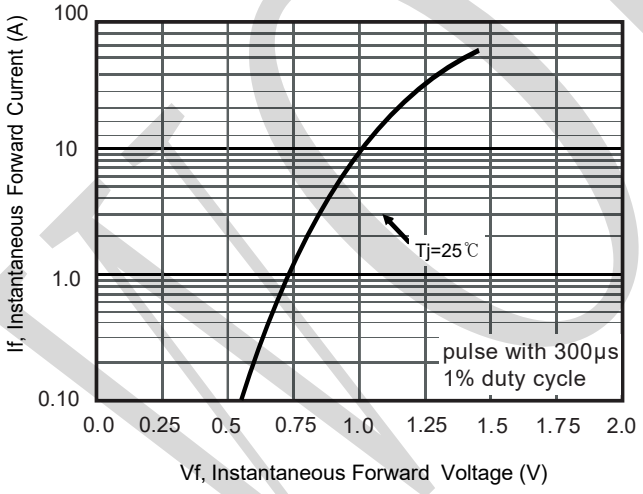
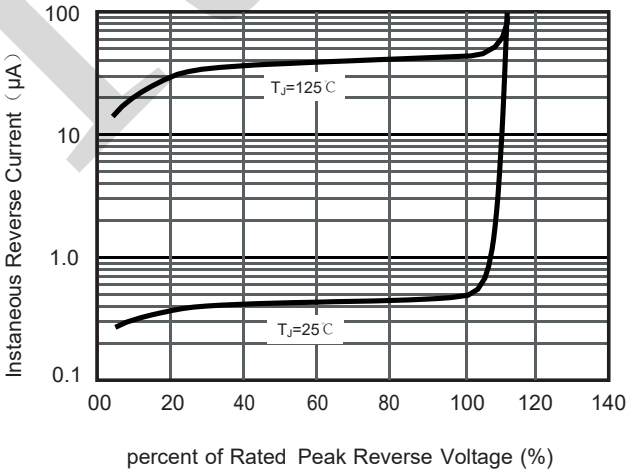
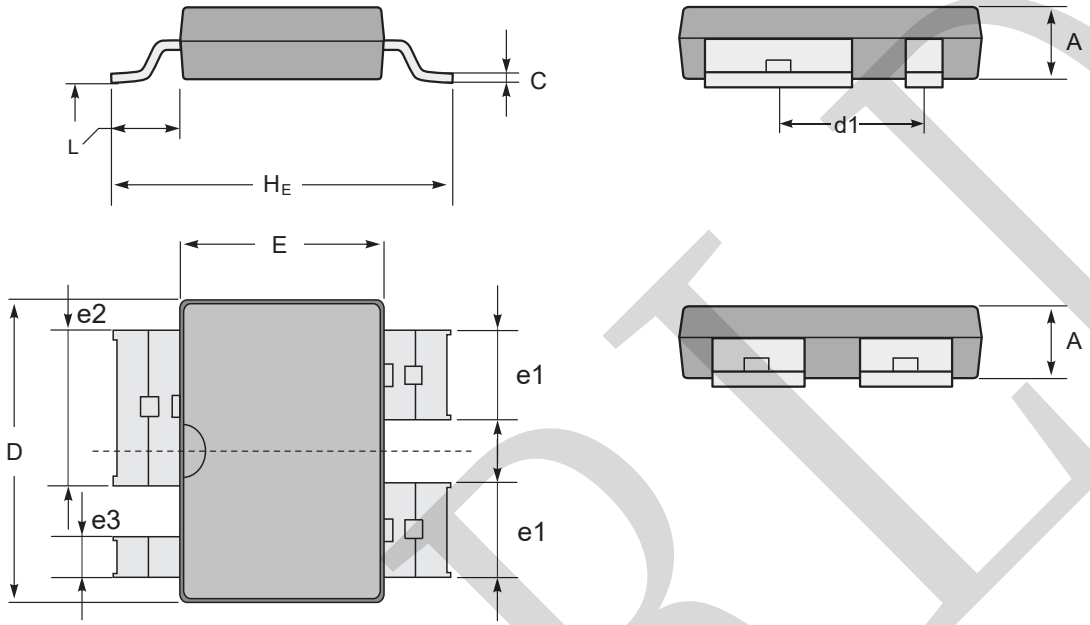


Fig.4 Typical Reverse Characteristics



PACKAGE OUTLINE DIMENSIONS

HSB



HSB mechanical data

UNIT		A	C	D	E	H_E	e1	e2	e3	d1	L
mm	min	3.3	0.3	19.9	12.6	19.5	5.75	9.2	2.35	9.25	3.05
	max	3.9	0.5	20.9	13.6	20.5	6.35	9.8	2.95	9.85	3.85
mil	min	129.9	11.8	783.5	496.1	767.7	226.4	362.2	92.5	364.2	120.1
	max	153.5	19.8	822.8	535.4	807.1	250.0	385.8	116.1	387.8	151.6

HSB Suggested Pad Layout