

■ Features

- Glass passivated chip
- Low reverse leakage current
- High surge current capability
- Reliable low cost construction utilizing molded plastic technique

■ Applications

- General purpose use in AC/DC bridge full wave rectification

■ Mechanical Data

- Case: HBS
- Polarity symbols being marked on body
- Molding compound meets UL 94V-0 flammability rating
- RoHS-compliant, Solder plated, solderable per MIL-STD-750, Method 2026



Reverse Voltage

50-1000 V

Forward Current

4.0 A max

Appearance Image



■ Marking

- HBS4xx(005~10)

■ Maximum Ratings @ Ta = 25°C unless otherwise noted

PARAMETER	SYMBOL	UNIT	HBS4005	HBS401	HBS402	HBS404	HBS406	HBS408	HBS410
Repetitive peak reverse voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Maximum average output current@60Hz sine wave, resistance load	$I_{F(AV)}$	A	4.0						
Peak forward surge current 8.3 ms single half sine wave superimposed on rated load	I_{FSM}	A	125						
Peak forward surge current 1.0 ms single half sine wave superimposed on rated load		A	250						
Current squared time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	Pt	A²S	64.84						
Storage temperature	Tstg	°C	-55~+150						
Junction temperature	Tj	°C	-55~+150						

■ Electrical Characteristics @ Ta = 25°C unless otherwise noted

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	HBS4005	HBS401	HBS402	HBS404	HBS406	HBS408	HBS410
Maximum instantaneous forward voltage	$I_F=2.0A$	V_F	V	1.0						
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}$, Tj=25°C	I_R	μA	5						
	$V_R=V_{DC}$, Tj=100°C	I_R		100						

■ Characteristic Curve (Typical)

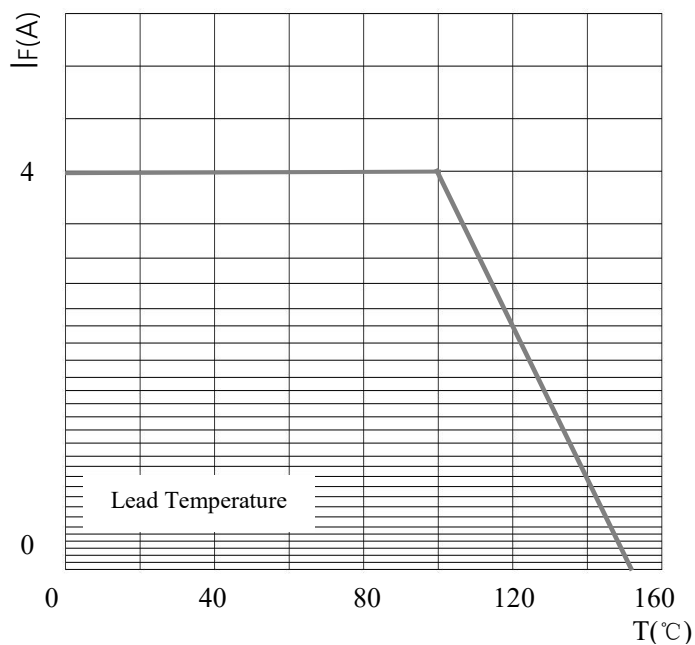


FIG1. Derating Curve For Output Rectified Current

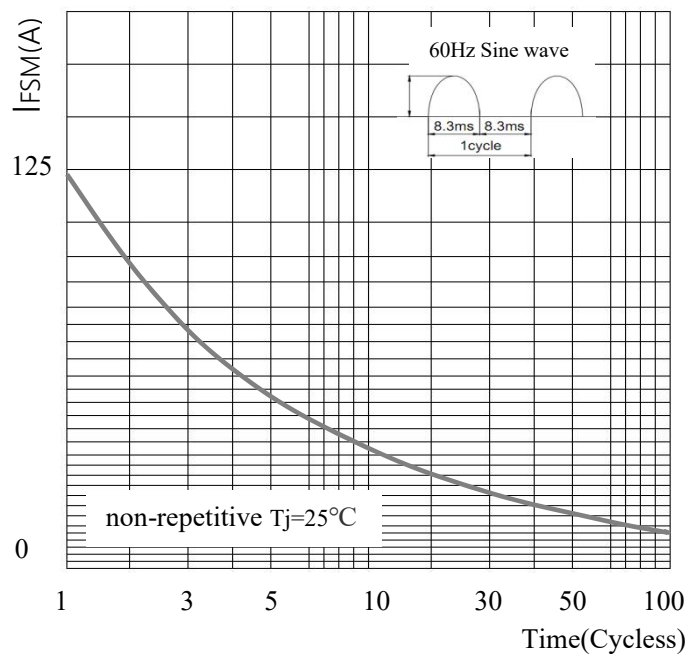


FIG2. Surge Forward Current Capability

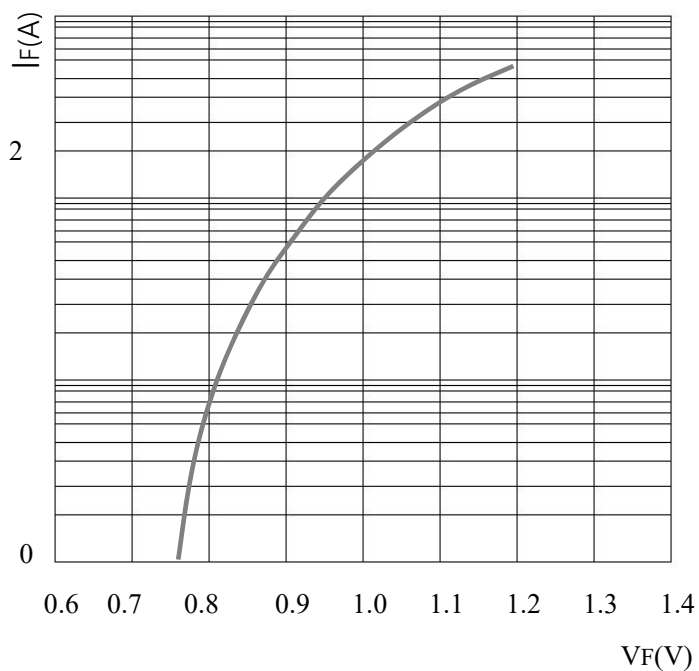


FIG3. Typical Forward Characteristics

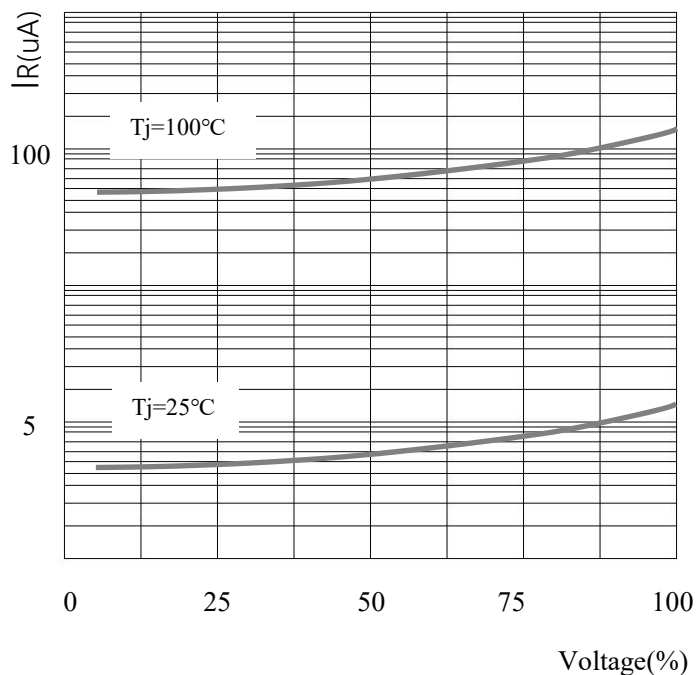
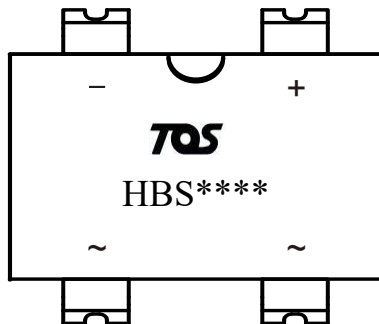


FIG4. Typical Reverse Characteristics

■ Marking and packet information



HBS**** : Product Type Code **TOS** : Brand Loge

Packaging information	
Reel	2500PCS
Carton	25000PCS
Reel Size	13"

■ HBS Package outline dimensions

Dimensions				
Symbol	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	0.39	0.41	10.0	10.4
B	0.28	0.29	7.0	7.4
C	0.06	0.07	1.4	1.8
D	0.38	0.40	9.7	10.2
E	0.21	0.22	5.3	5.7
F	0.06	0.08	1.5	2.0

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