

■ **Features**

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

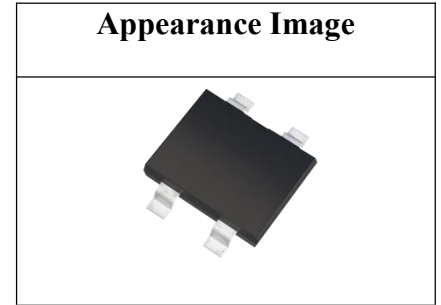
Reverse Voltage 50-1000 V
Forward Current 5.0 A max

■ **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



■ **Marking**

- HBS5xx(005~10)

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

PARAMETER	SYMBOL	UNIT	HBS5005	HBS501	HBS502	HBS504	HBS506	HBS508	HBS510
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	5.0						
Peak forward surge current 8.3 ms single half sine wave superimposed on rated load	I_{FSM}	A	140						
Peak forward surge current 1.0 ms single half sine wave superimposed on rated load		A	280						
Current squared time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	I^2t	A ² S	81.34						
Storage temperature	T_{stg}	°C	-55~+150						
Junction temperature	T_j	°C	-55~+150						

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	HBS5005	HBS501	HBS502	HBS504	HBS506	HBS508	HBS510
Maximum instantaneous forward voltage	$I_F=2.5A$	V_F	V	1.0						
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_j=25^\circ C$	I_R	μA	5						
	$V_R=V_{DC}, T_j=100^\circ C$	I_R		100						

■ **Characteristic Curve (Typical)**

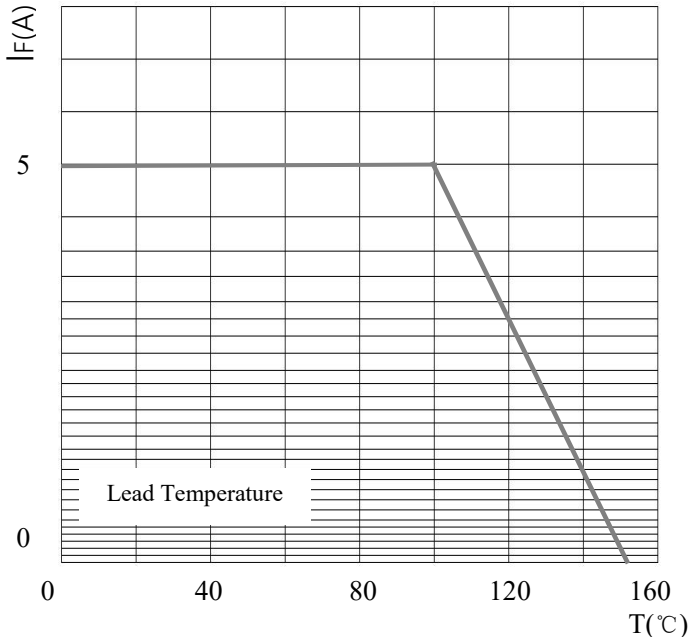


FIG1. Derating Curve For Output Rectified Current

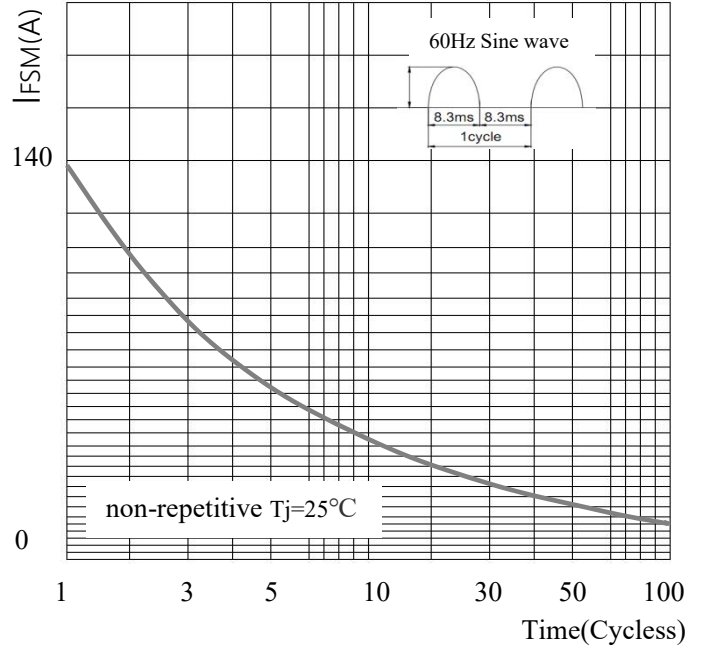


FIG2. Surge Forward Current Capability

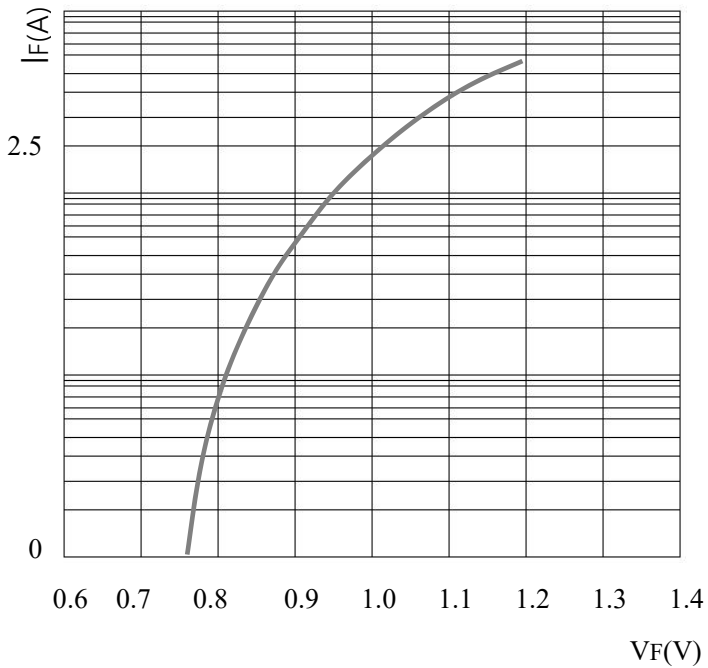


FIG3. Typical Forward Characteristics

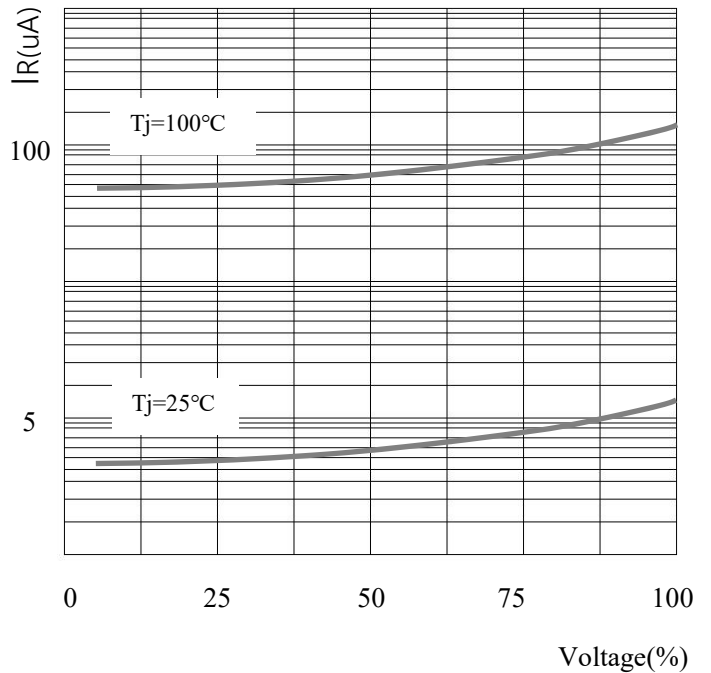
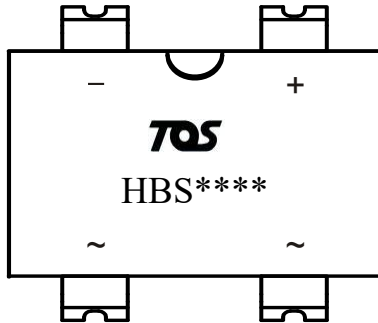


FIG4. Typical Reverse Characteristics

■ **Marking and packet information**



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

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

■ **HBS Package outline dimensions**

Symbol	Dimensions			
	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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