

D45XT160

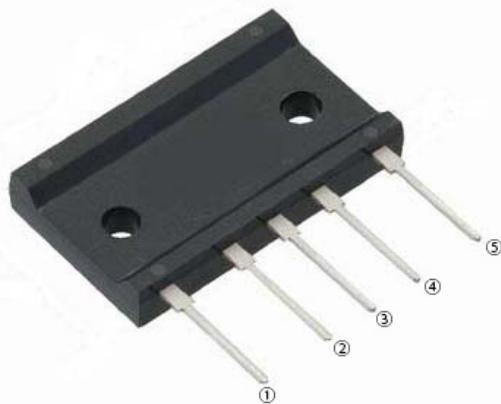
Bridge Diodes
1600V, 45A

Feature

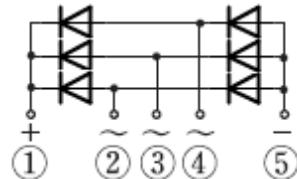
- Compact SIP
- UL E142422
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): TSB(5pin)



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : $T_c=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T_{stg}		-40 to 150	°C
Junction temperature	T_j		150	°C
Repetitive peak reverse voltage	V_{RRM}		1600	V
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, With heatsink, $T_c=97^\circ\text{C}$	45	A
Average forward current	$I_F(AV)$	50Hz sine wave, Resistance load, Without heatsink, $T_a=26^\circ\text{C}$	4.6	A
Surge forward current	I_{FSM}	60Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^\circ\text{C}$	360	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, per diode, $T_j=25^\circ\text{C}$	330	A
Current squared time	I^2t	$1\text{ms} \leq t < 10\text{ms}$, per diode	544.5	A^2s
Dielectric strength	V_{dis}	Terminals to case, AC 1 minute, Except top (opposite side of the terminal side) of the mold case	2.5	kV
Mounting torque	T_{OR}	(Recommended torque : $1.2\text{N}\cdot\text{m}$)	1.5	$\text{N}\cdot\text{m}$

※ : See the original Specifications

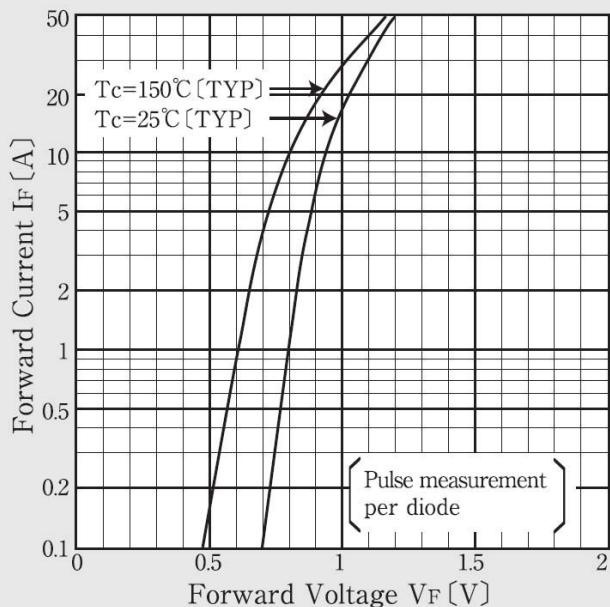
Electrical Characteristics (unless otherwise specified : $T_c=25^\circ\text{C}$)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	$IF=15\text{A}$, Pulse measurement, per diode			1.05	V
Reverse current	I_R	$VR=1600\text{V}$, Pulse measurement, per diode			100	μA
Thermal resistance	$R_{th(j-c)}$	Junction to case			0.5	$^\circ\text{C}/\text{W}$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient			16	$^\circ\text{C}/\text{W}$

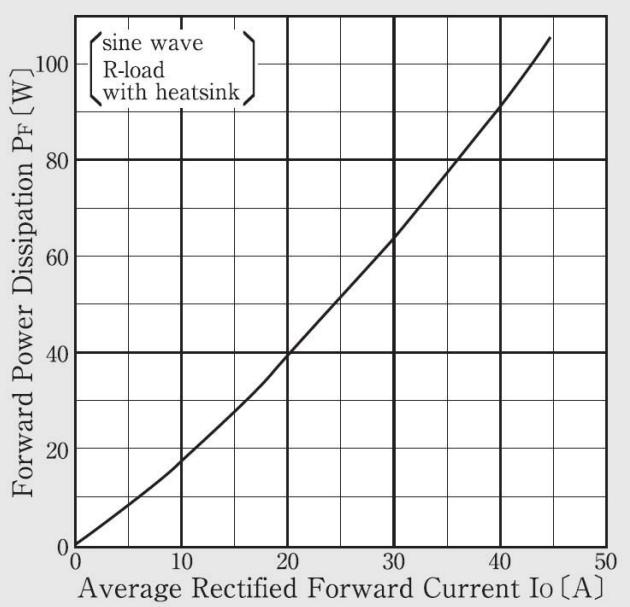
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

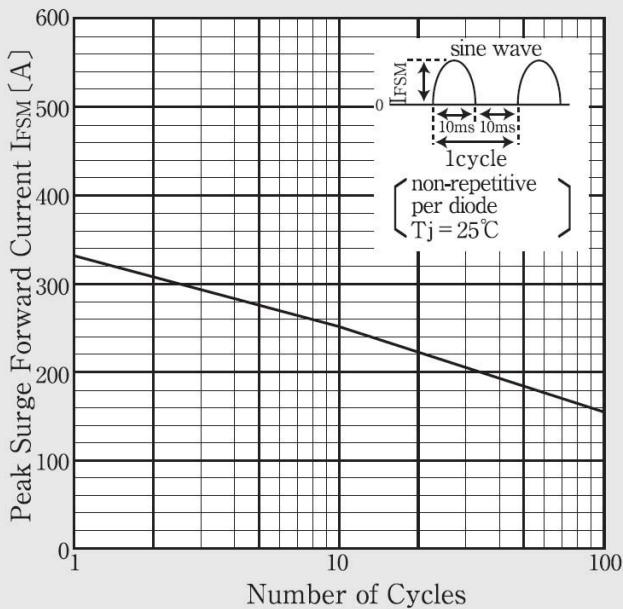
Forward Voltage



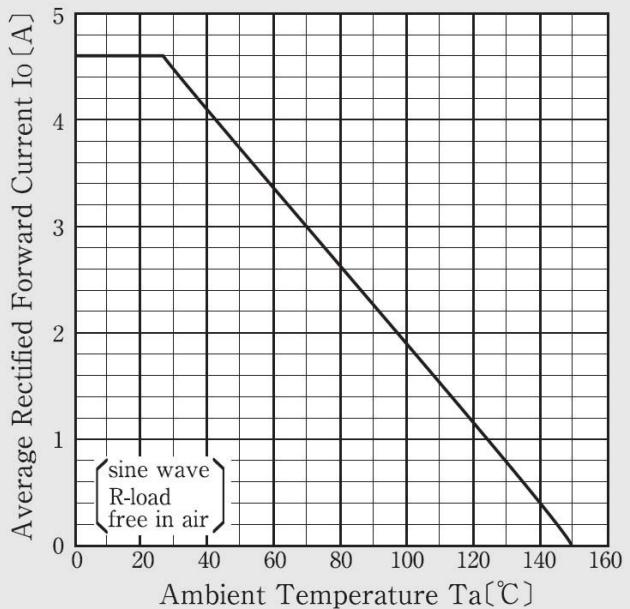
Forward Power Dissipation

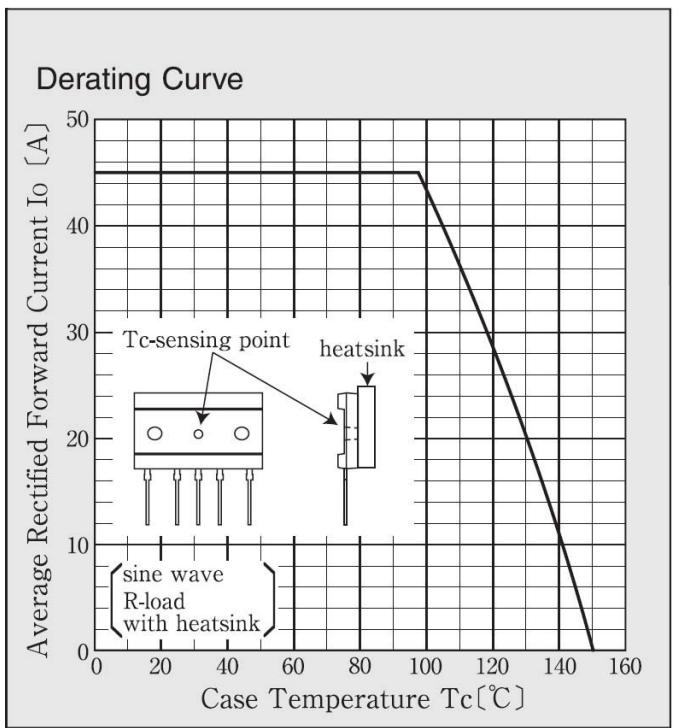


Peak Surge Forward Current Capability



Derating Curve





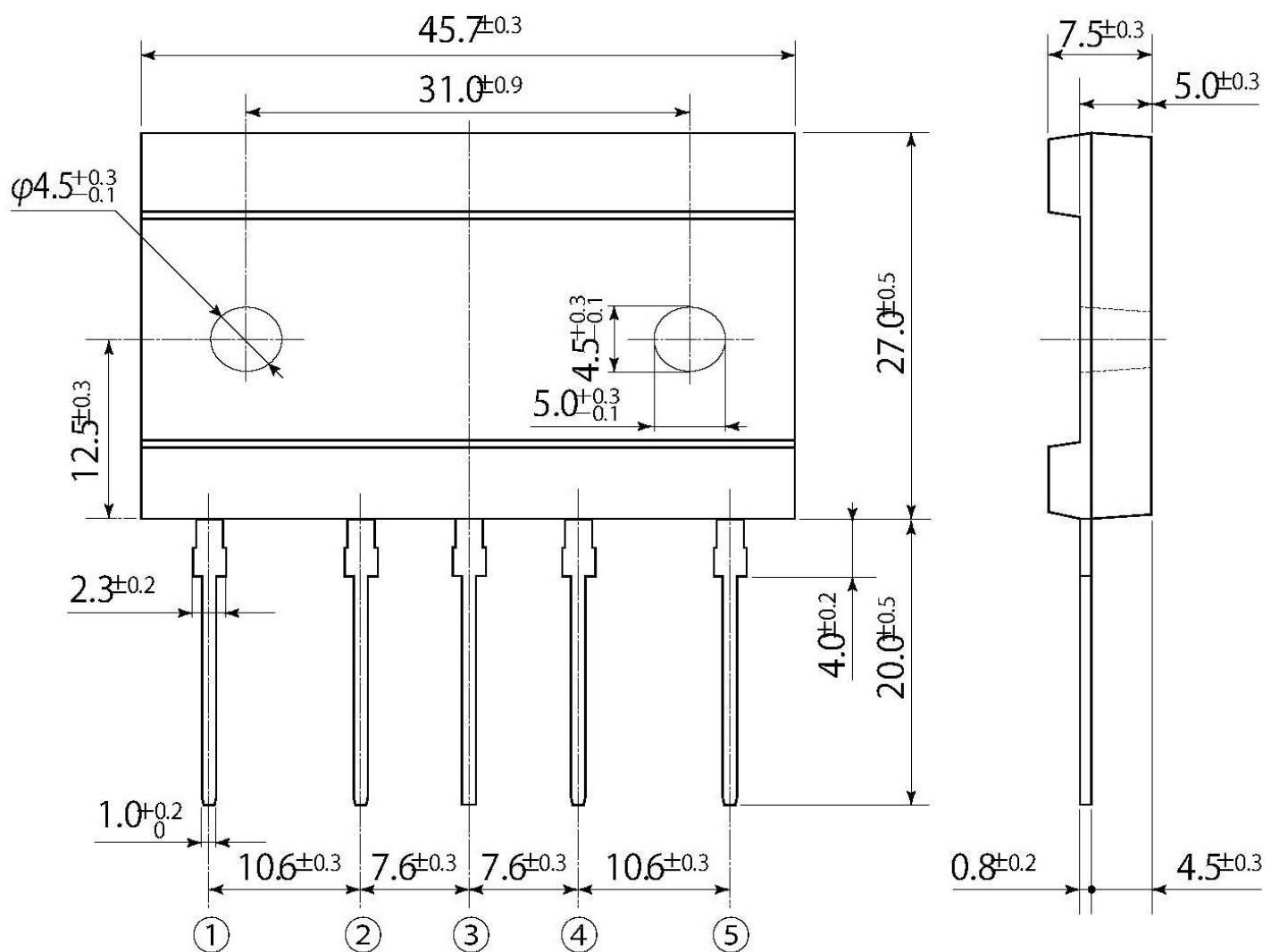
Outline Dimensions

unit:mm

scale: 2/1

D8

JEDEC Code	—
JEITA Code	—
House Name	TSB(5pin), JC(5pin)



Notes

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【Standard applications】

Computers, office automation and other office equipment, communication terminals, test and measurement equipment, audio/visual equipment, amusement equipment, consumer electronics, machine tools, personal electronic equipment, industrial equipment, etc.

【Special applications】

Transportation equipment (vehicles, ships, etc.), trunk-line communication equipment, traffic signal control systems, anti-disaster/crime systems, safety equipment, medical equipment, etc.

【Specific applications】

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