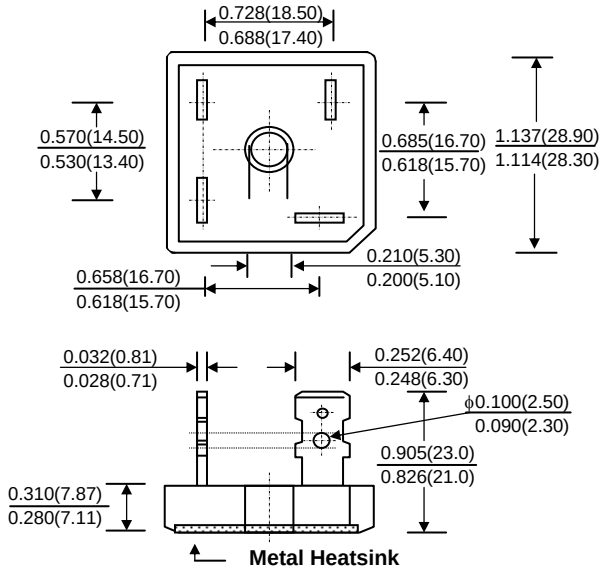
S25VB20 ~ S25VB60

SILICON BRIDGE RECTIFIERS

PRV : 200 ~ 600 Volts

Io : 25 Amperes

BR50



Dimensions in inches and (millimeters)

FEATURES :

* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Ideal for printed circuit board
* Pb / RoHS Free

MECHANICAL DATA :

* Case : Molded plastic with heatsink integrally mounted in the bridge encapsulation
* Epoxy : UL94V-O rate flame retardant
* Terminals : plated .25" (6.35 mm). Faston
* Polarity : Polarity symbols marked on case
* Mounting position : Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency.
* Weight : 17.1 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	S25VB20	S25VB60	UNIT
Maximum Reverse Voltage	V_{RM}	200	600	V
Maximum Average Forward Current Tc = 85°C	$I_{F(AV)}$	25		A
Maximum Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	400		A
Current Squared Time at 1ms ≤ t < 10 ms.	I^2t	800		A^2S
Maximum Forward Voltage per Diode at I_F = 12.5 A	V_F	1.05		V
Maximum DC Reverse Current at $V_R = V_{RRM}$ (Pulse Measurement, Rating of per diode)	I_R	10		μA
Typical Thermal Resistance (Note 1)	RθJC	1.5		°C/W
Operating Junction Temperature Range	T_J	150		°C
Storage Temperature Range	T_{STG}	- 40 to + 150		°C

Note :

1. Thermal Resistance from junction to case with units mounted on a 5" x 6" x 4.9" (12.8cm.x 15.2cm.x 12.4cm.) Al.-Finned Plate

RATING AND CHARACTERISTIC CURVES (S25VB20 ~ S25VB60)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

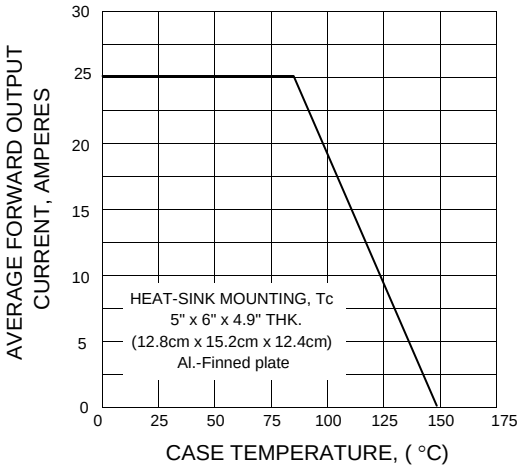


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

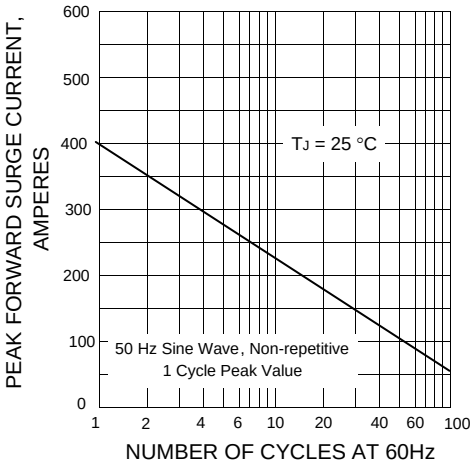


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

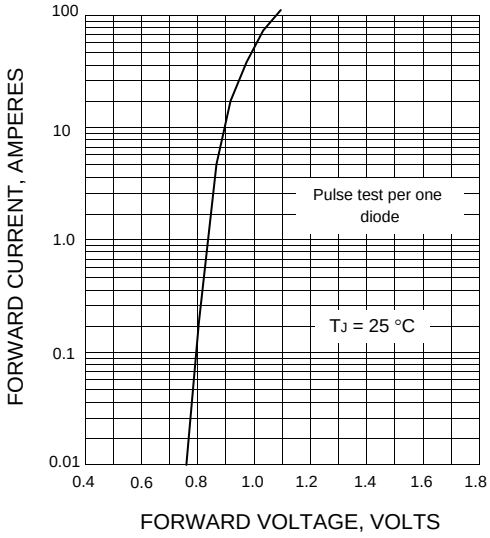


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE