Certificate Number: Q10561

Certificate Number: E17276

DF005S - DF10S

SURFACE MOUNT BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts
Io : 1.0 Ampere

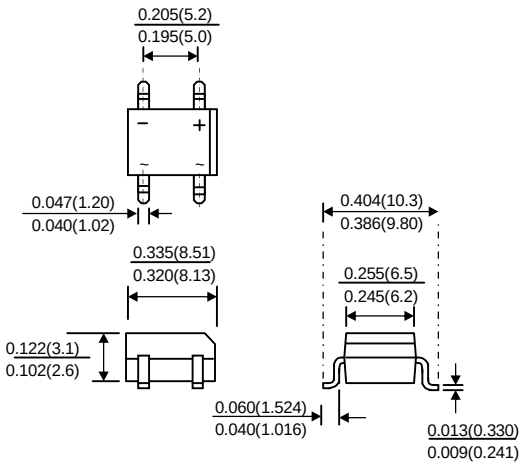
FEATURES :

* 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
* Epoxy : UL94V-O rate flame retardant
* Terminals : Plated Lead solderable per MIL-STD-750, Method 2026
* Polarity : Polarity symbols marked on body
* Mounting position : Any
* Weight : 0.4 gram

DFS



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
60 Hz, resistive or inductive load.

RATING	SYMBOL	DF005S	DF01S	DF02S	DF04S	DF06S	DF08S	DF10S	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current at Ta = 40°C	$I_{F(AV)}$	1.0							A
Maximum Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	50							A
Current Squared Time at t < 8.3 ms.	I^2t	10							A^2S
Maximum Instantaneous Forward Voltage per element at I_F = 1.0 A	V_F	1.1							V
Maximum DC Reverse Current Ta = 25°C	I_R	10							µA
at Rated DC Blocking Voltage Ta = 125°C	$I_{R(H)}$	500							µA
Typical Junction Capacitance per element (Note 1)	Cj	25							pF
Typical Thermal Resistance (Note 2)	RθJA	40							°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150							°C

Notes : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC

(2) Thermal Resistance from Junction to Ambient on P.C.B. with 0.5" x 0.5" (13mm x 13mm) Copper Pads.

RATING AND CHARACTERISTIC CURVES (DF005S - DF10S)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

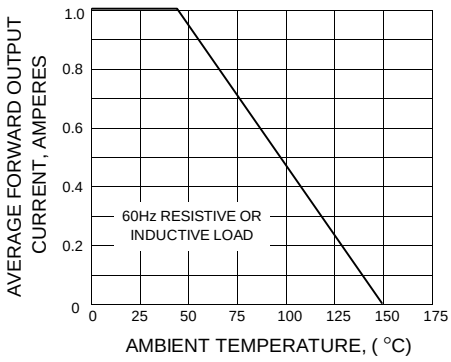


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT

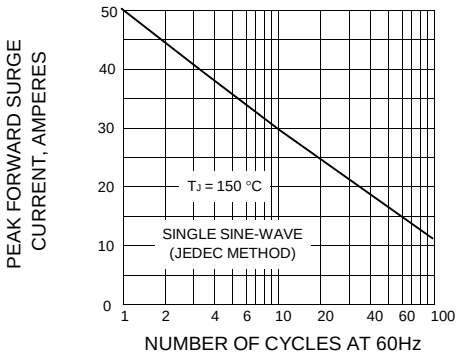


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

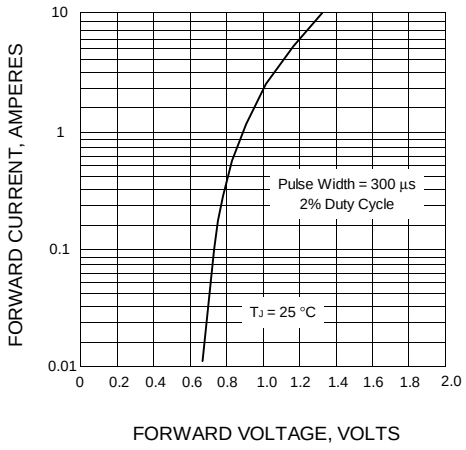


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

