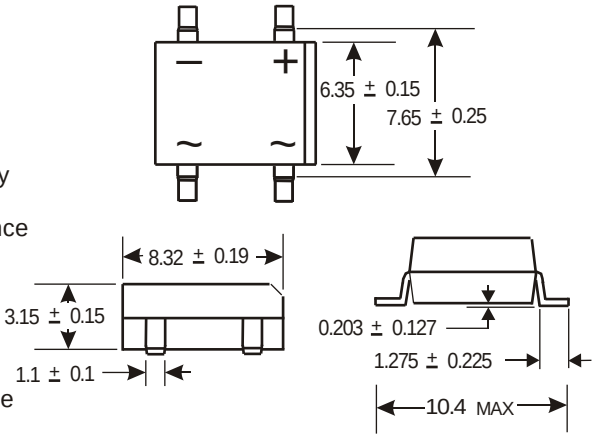
SEP ELECTRONIC CORP.

DF005S thru DF10S

1.0 A Single-Phase Glass Passivated Bridge Rectifiers

Rectifier Reverse Voltage 50 to 1000V

DB-S



Dimensions in millimeters(1mm =0.0394")

Features

- This series is UL listed under the Recognized Component Index, file number E142814
- Single In-Line terminals array suitable for P.C. board mounting
- Surge overload ratings to 300 amperes
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Integrally molded heat sinks provide low thermal resistance for maximum heat dissipation
- High temperature soldering guaranteed 265℃/10 seconds at 5 lbs (2.3kg) tension

Mechanical Data

Case: Molded plastic with heat sink integrally mounted in the bridge encapsulation
Terminals: Plated wire leads solderable per MIL-STD-202, Method 208
Mounting Position: Any
Weight: 0.04 ounce, 1.0 grams (approx)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	DF005S	DF01S	DF02S	DF04S	DF06S	DF08S	DF10S	unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS bridge input 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 rectified output current at T_A=40°C	$I_{F(AV)}$	1.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							A
Rating for fusing (t<8.3ms)	I^2t	10							A^2sec
Typical thermal resistance per element (1)	$R_{\theta JA}$	110							℃/W
Typical junction capacitance per element (2)	C_j	25.0							pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to + 150							℃

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	DF005S	DF01S	DF02S	DF04S	DF06S	DF08S	DF10S	Unit
Maximum instantaneous forward voltage drop per leg at 1.0A	V_F	1.1							V
Maximum DC reverse current at rated T_A =25°C DC blocking voltage per element T_A =125°C	I_R	10 500							μA

Notes: (1)Thermal resistance from Junction to Ambemt on P.C.board mounting.
(2)Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

Rating and Characteristic Curves (TA = 25°C Unless otherwise noted)
DF005S thru DF10S

Fig. 1 Derating Curve for Output Rectified Current

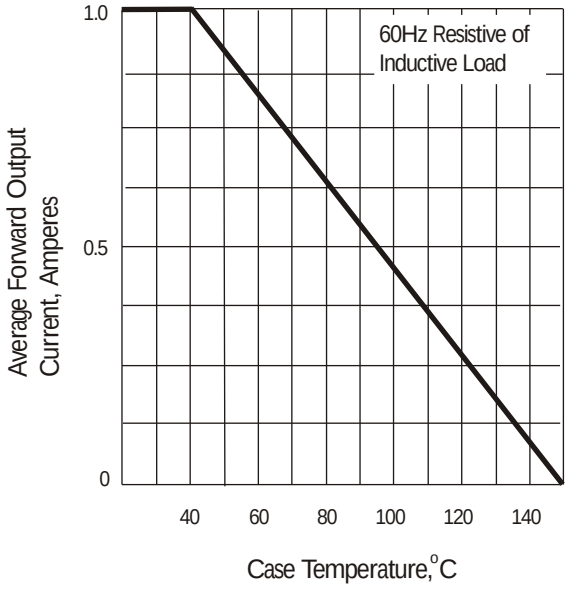


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

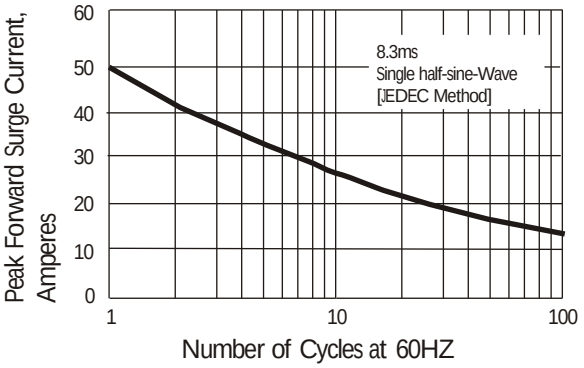


Fig. 3 Typical Instantaneous Forward Characteristics

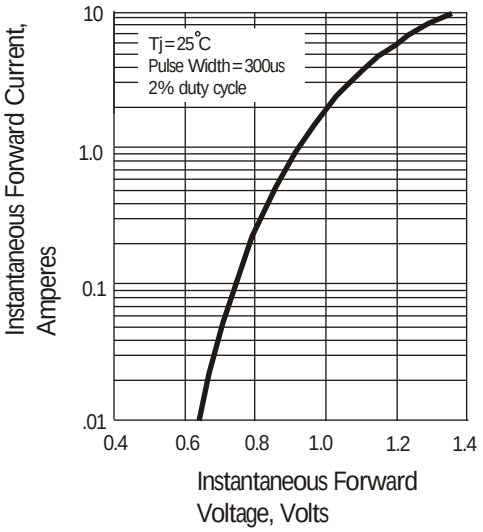


Fig. 4 Typical Revers Characteristics

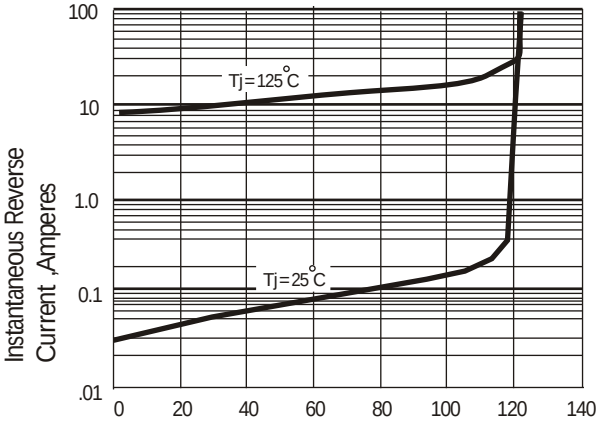


Fig. 5 Typical Junction Capacitance