ES3ABT THRU ES3JBT

SURFACE MOUNT GLASS PASSIVATED JUNCTION SUPER FAST RECOVERY RECTIFIER

Reverse Voltage: 50 to 600 Volts
Forward Current:3.0Amperes

SEMICONDUCTOR

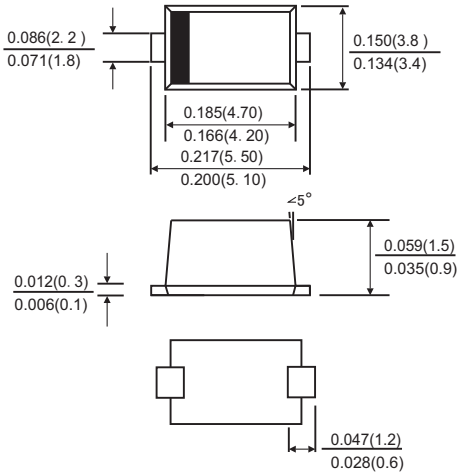
FEATURES

- Glass passivated
- Ideal for surface mount automotive applications
- Ultrafast recovery time for high efficiency
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability
- Classification 94V-0
- Lead (Pb)-free component
- Component in accordance to RoHS 2011/65/EU
- High temperature soldering guaranteed:260°C/10 seconds at terminals

MECHANICAL DATA

- Case: SMBF molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end

SMBF



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	ES3							Units
		ABT	BBT	CBT	DBT	EBT	GBT	JBT	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current At T_L=110°C	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100							Amps
Maximum Instantaneous Forward Voltage at 3.0 A	V_F	1. 0				1.25		1.7	Volts
Maximum DC Reverse Current At Rated DC Blocking Voltage T_A=25°C	I_R	5							μA
Maximum DC Reverse Current At Rated DC Blocking Voltage T_A=125°C	I_R	100							μA
Maximum Reverse Recovery Time(Note1)	trr	35							ns
Typical Thermal Resistance (NOTE2)	$R_{\theta JA}$	55							℃/W
Operating Junction and Storage Temperature	T_J, T_{STG}	-55 to+150							℃

Note: 1.Reverse Recovery Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.
2. P. C. B. mounted with 0. 5x0. 5″(12. 7x12. 7mm)Copper Pad Areas.

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RATINGS AND CHARACTERISTIC CURVES ES3ABT

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

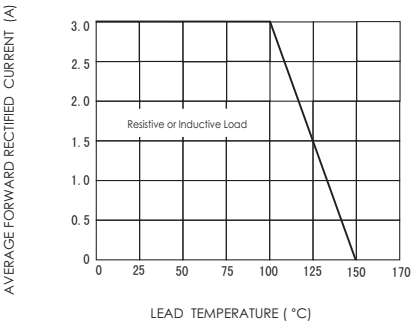

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

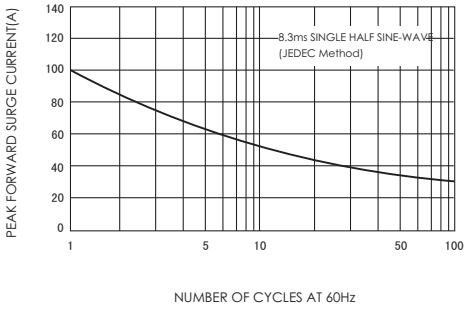

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

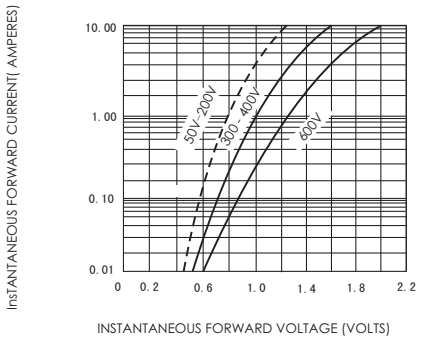

FIG.4-TYPICAL REVERSE CHARACTERISTICS