

ES3AF~ES3JF

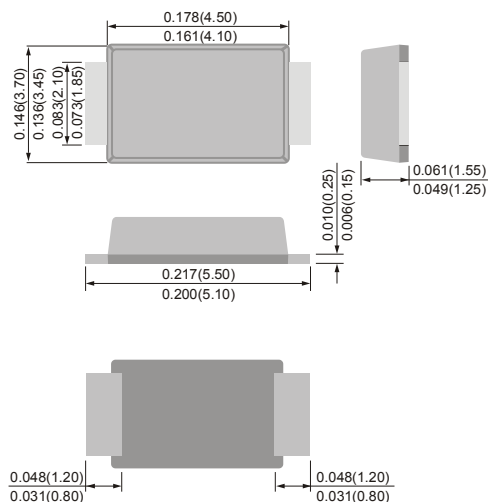
SURFACE MOUNT RECTIFIER

VOLTAGE 50 to 600 Volts CURRENT 3 Amperes



SMBF

Unit : inch(mm)



FEATURES

- For surface mounted applications
- High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
- Glass passivated junction
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Lead free in comply with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: JEDEC SMBF molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 16mm tape (EIA-481)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

PASAFMETES	SYMBOL	ES3AF	ES3BF	ES3CF	ES3DF	ES3EF	ES3GF	ES3JF	UNITS
	MARKING	ES3AF	ES3BF	ES3CF	ES3DF	ES3EF	ES3GF	ES3JF	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Current at T _L =75°C	I _{F(AV)}	3							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	100							A
Maximum Forward Voltage at 3A	V _F	0.95				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _J =25°C T _J =100°C	I _R	5 200							μA
Maximum Reverse Recovery Time (Notes 1)	t _{rr}	35							ns
Typical Junction Capacitance (Notes 2)	C _J	45							pF
Typical Thermal Resistance (Notes 3)	R _{θJL}	20							°C / W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

NOTES: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$ 2. Measured at 1 MHz and applied $V_r = 4.0$ volts.3. 8.0 mm^2 (.013mm thick) land areas.

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RATING AND CHARACTERISTIC CURVES

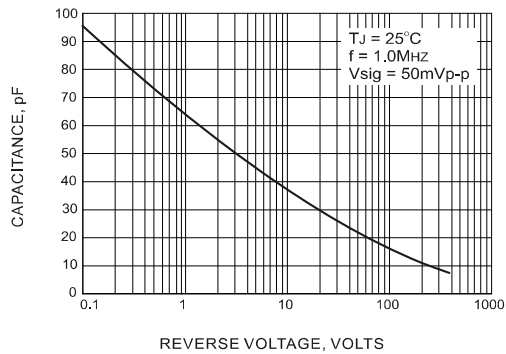


FIG.1 TYPICAL JUNCTION CAPACITANCE

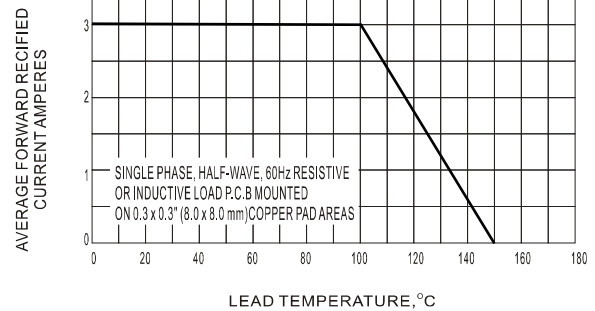


FIG.2 MAXIMUM AVERAGE FORWARD CURRENT RATING

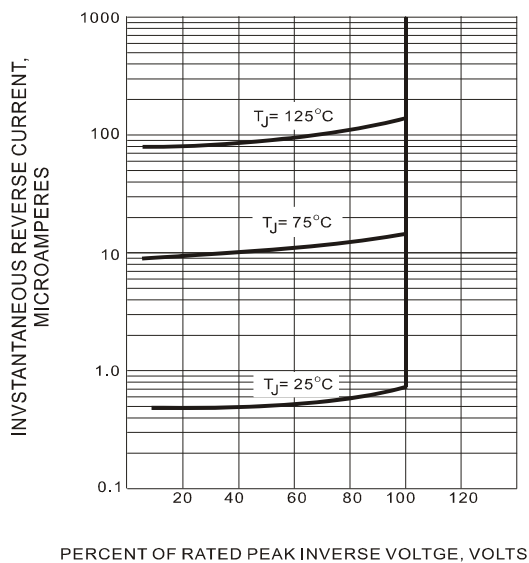


FIG.3 TYPICAL REVERSE CHARACTERISTICS

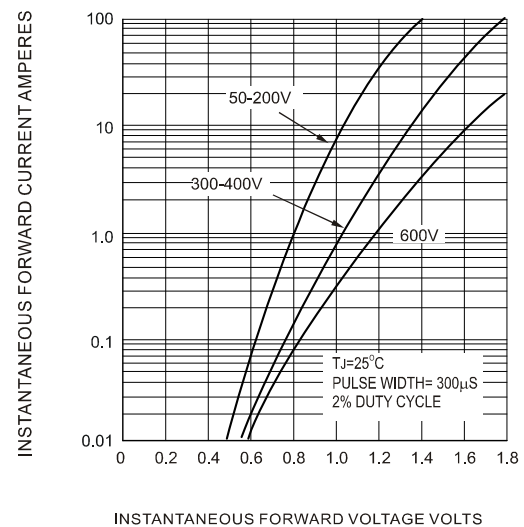


FIG.4 TYPICAL FORWARD CHARACTERISTICS

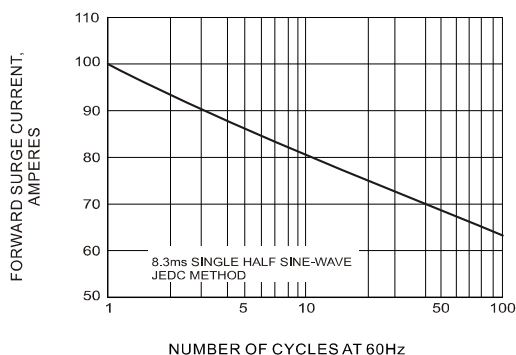


FIG.5 MAXIMUM NON-REPEITIVE SURGE CURRENT