

Features

- Low forward voltage drop
- Guarding protection
- High current capability
- High efficiency operation
- Extremely low thermal resistance

Applications

- Case: SMAF molded plastic
- Polarity protection application
- DC-DC converters
- High frequency rectifier of switching mode power supplies



Absolute Maximum Ratings and Electrical characteristics

($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter		Symbols	TPBSS14AF	TPBSS16AF	TPBSS110AF	TPBSS120AF	Units
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	40	60	100	200	V
Maximum RMS voltage		V _{RMS}	28	42	70	140	V
Maximum DC Blocking Voltage		V _{DC}	40	60	100	200	V
Maximum average forward rectified current at T _L =90		I _{F(AV)}	1.0				A
Peak forward surge current 8.3ms single half-sine-wave		I _{FSM}	30				A
Maximum instantaneous forward voltage at I _{FM} =1.0A		V _F	0.55	0.70	0.85	0.95	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	T _a = 25°C	I _R	0.5		0.1		mA
	T = 100°C		50		10		
Thermal Resistance		R _{θJA}	115				°C/W
Operating Junction Temperature Range		T _j	-55 ~ +125				°C
Storage Temperature Range		T _{stg}	-55 ~ +150				°C

Typical Electrical Characteristic Curves

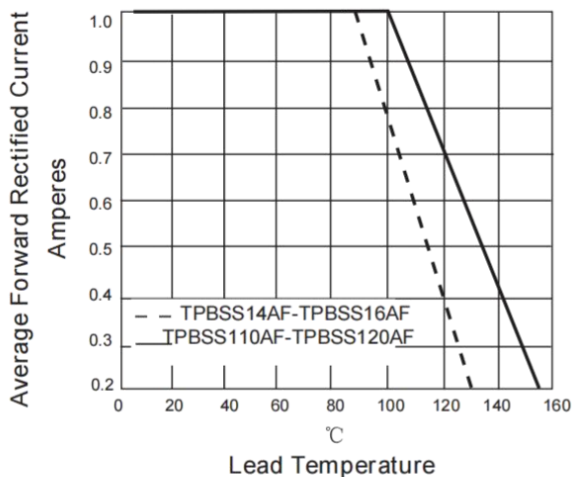


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

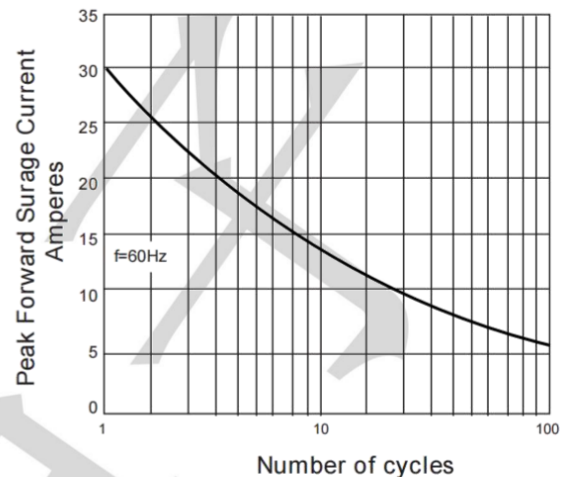


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

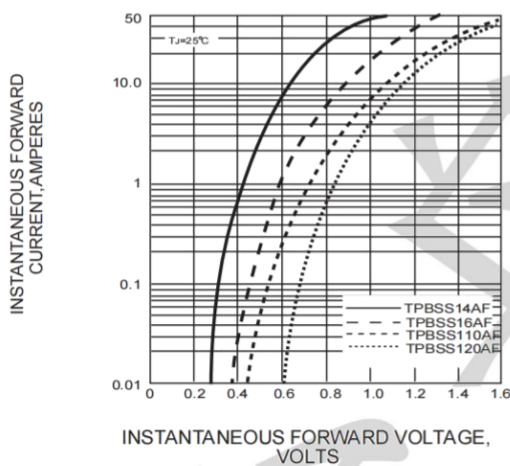


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

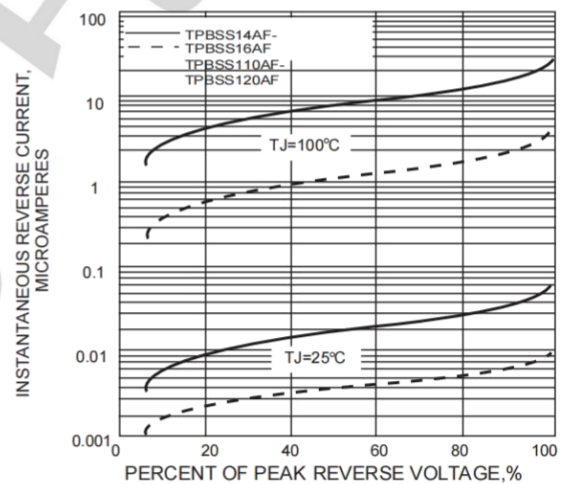
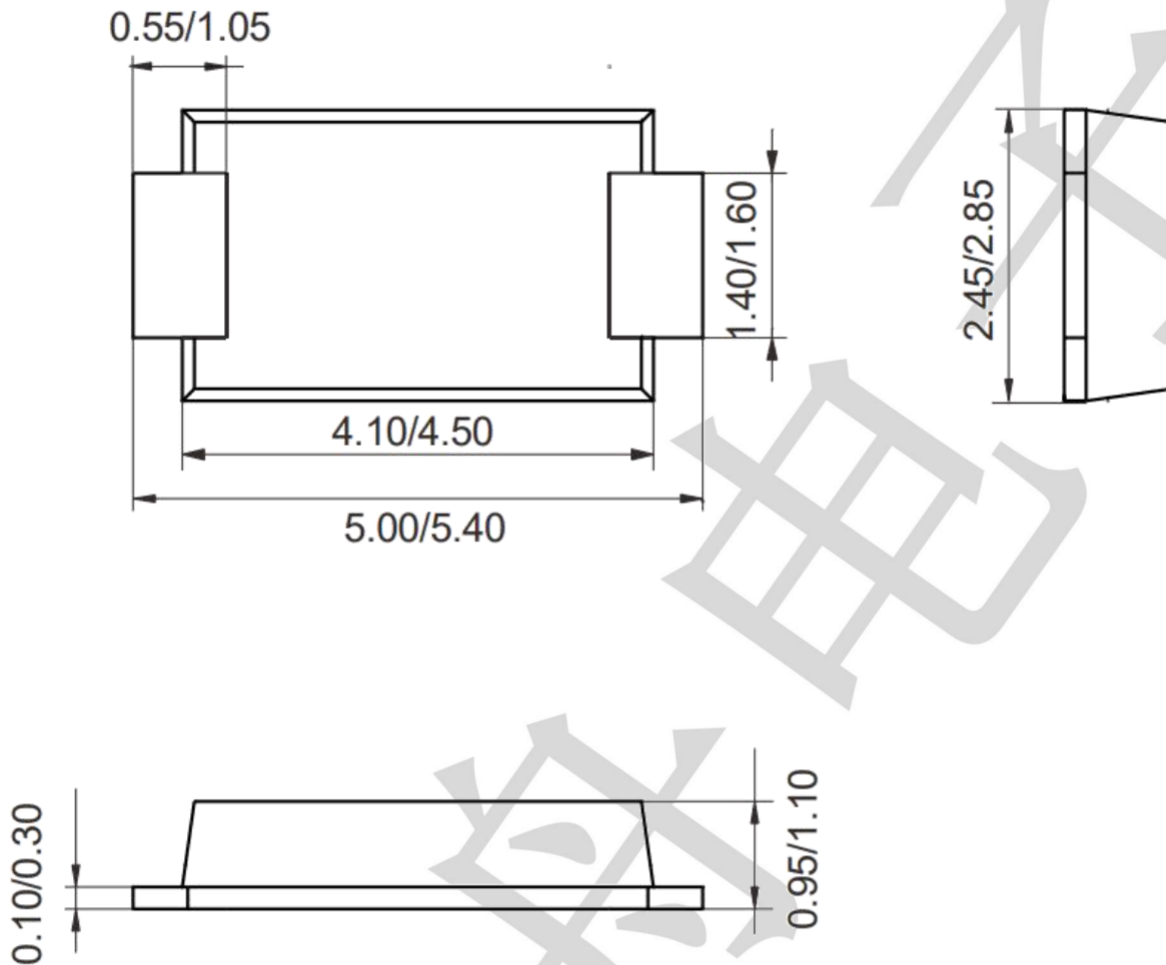


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

Package Outline Dimensions (unit: mm)

SMAF



Mounting Pad Layout (unit: mm)

