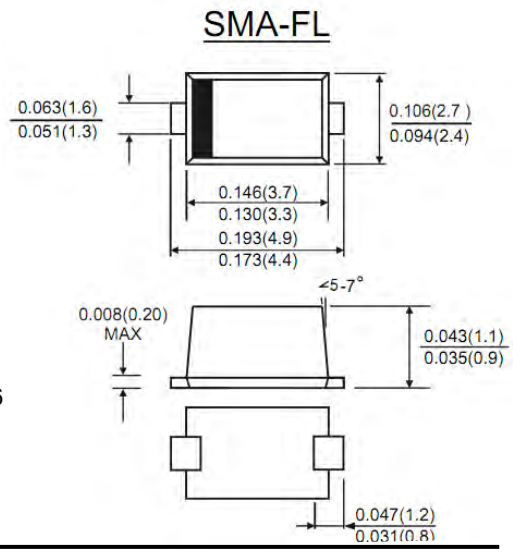
1A SURFACE MOUNT ULTRA FAST RECOVERY RECTIFIER
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Amperes

Features

- Glass passivated junction
- Low forward voltage drop
- High current capability
- Low reverse leakage
- High surge current capability
- High reliablity
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0



Mechanical Data

- Case: SMA-FL molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0027 grams (approximate)

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	HS1AF	HS1BF	HS1DF	HS1GF	HS1JF	HS1KF	HS1MF	UNITS
Maximum repetitive 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
Average Rectified Output Current 0.375″ (9.5mm) lead length	I_o	1.0							A
Peak forward surge current, 8.3 mS single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum instantaneous forward voltage at I_o	V_F	1.0			1.3	1.7			V
Maximum DC reverse current @ T_J = 25℃ at rated DC blocking voltage @ T_J = 100℃	I_R	5.0 50							μA
Maximum reverse recovery time (Note 1)	t_{rr}	50				75			nS
Typical junction capacitance (Note 2)	C_j	10							pF
Typical thermal resistance	$R_{\theta JA}$	80							℃/W
Operating junction temperature range	T_J	-55 to +150							℃
Storage temperature range	T_{STG}	-55 to +150							℃

Notes:
1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A.
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

Ratings and Characteristic Curves

FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

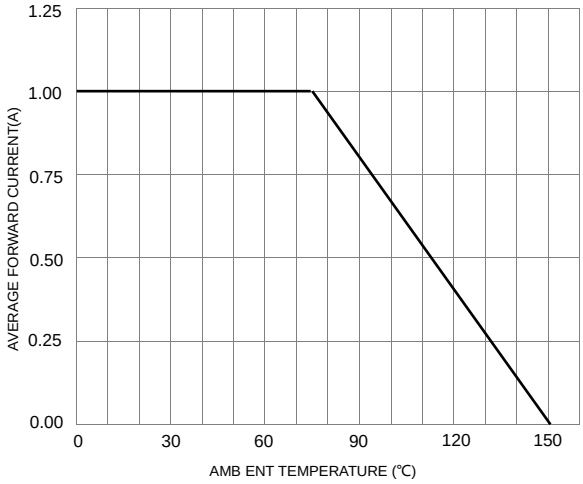


FIG. 2 – TYPICAL FORWARD CHARACTERISTICS

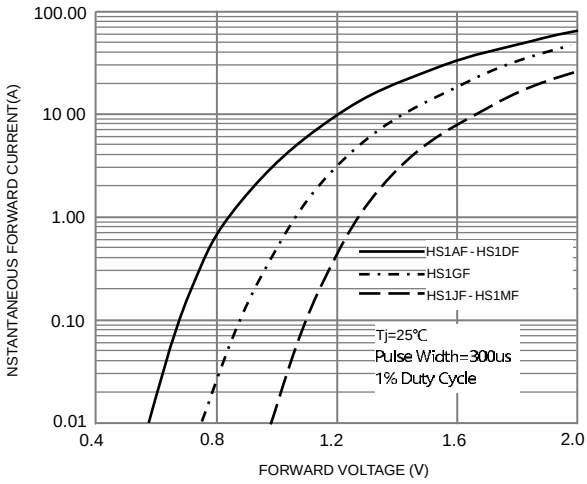


FIG. 3– MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

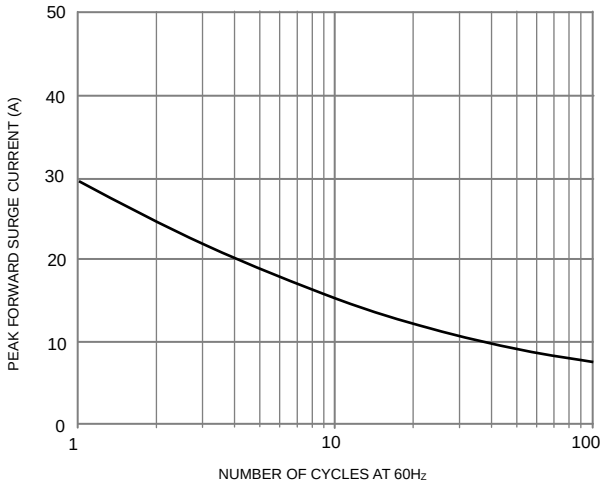


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

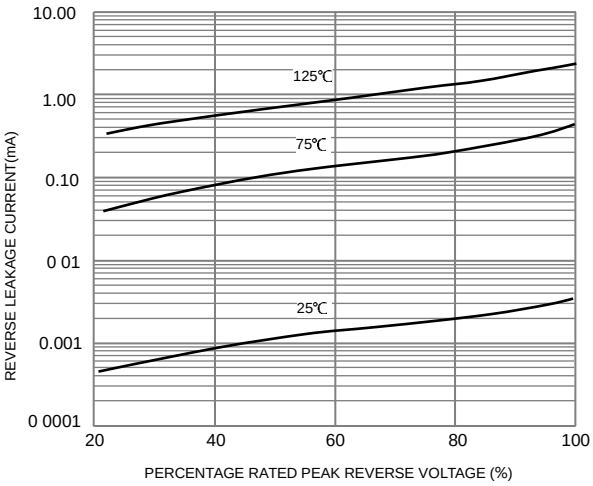


FIG. 5– TYPICAL JUNCTION CAPACITANCE

