



SMAF Super Fast Recovery Diode 特快恢复二极管



■Features 特点

High current capability 高电流能力
Low forward voltage drop 低正向压降
Super Fast Recovery time 特快恢复时间
Surface mount device 表面贴装器件
Case 封装:SMAF



SMAF

■Maximum Rating 最大额定值

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

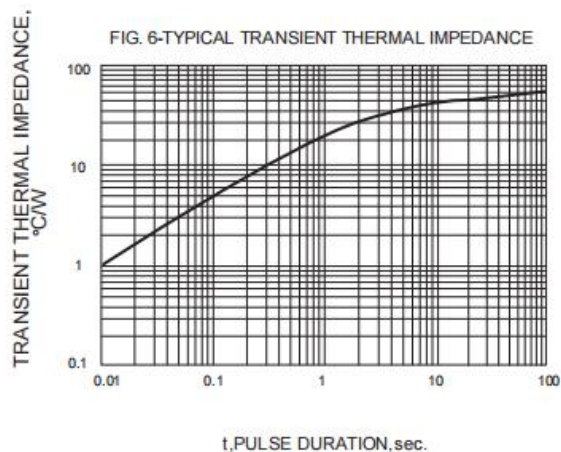
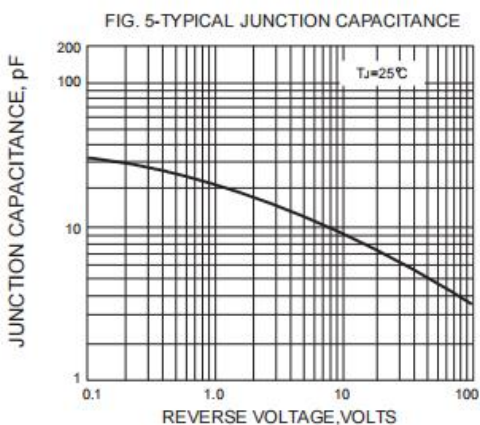
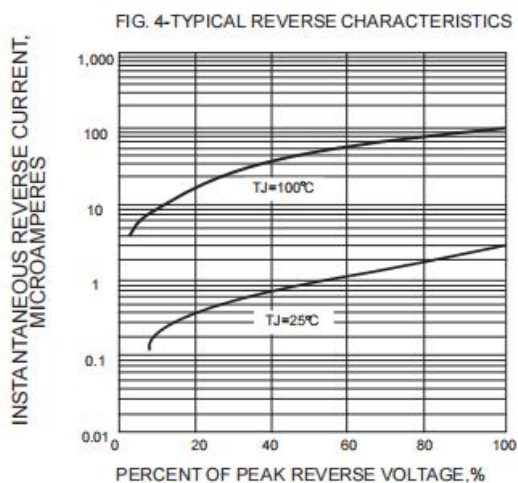
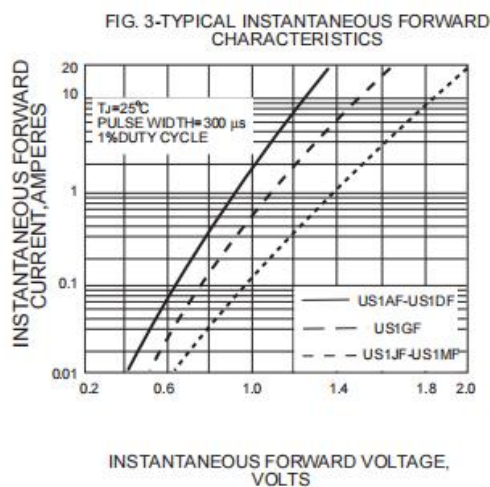
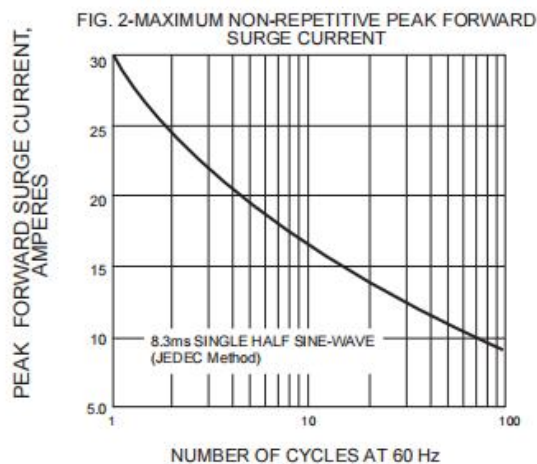
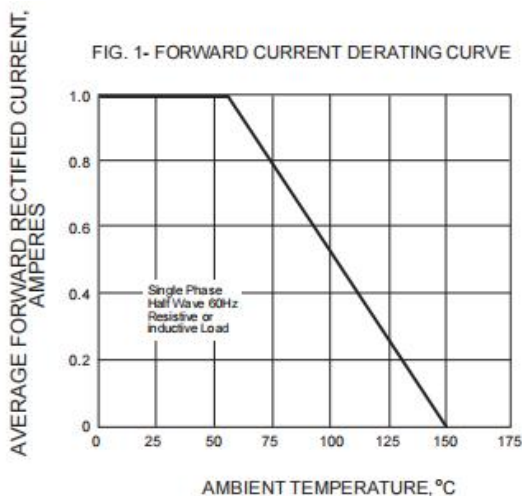
Characteristic 特性参数	Symbol 符号	US1AF -6AF	US1BF -6AF	US1DF -6AF	US1GF -6AF	US1JF -6AF	US1KF -6AF	US1MF -6AF	Unit 单位
Marking 印字		US1A	US1B	US1D	US1G	US1J	US1K	US1M	
Repetitive Peak Reverse Voltage 重复峰值反向电压	V_{RRM}	50	100	200	400	600	800	1000	V
DC Reverse Voltage 直流反向电压	V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage 反向电压均方根值	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Forward Rectified Current 正向整流电流	I_F	1							A
Peak Surge Current 峰值浪涌电流	I_{FSM}	30							A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	80							$^{\circ}\text{C}/\text{W}$
Junction/Storage Temperature 结温/储藏温度	T_J, T_{stg}	$-50\text{to}+150^{\circ}\text{C}$							

■Electrical Characteristics 电特性

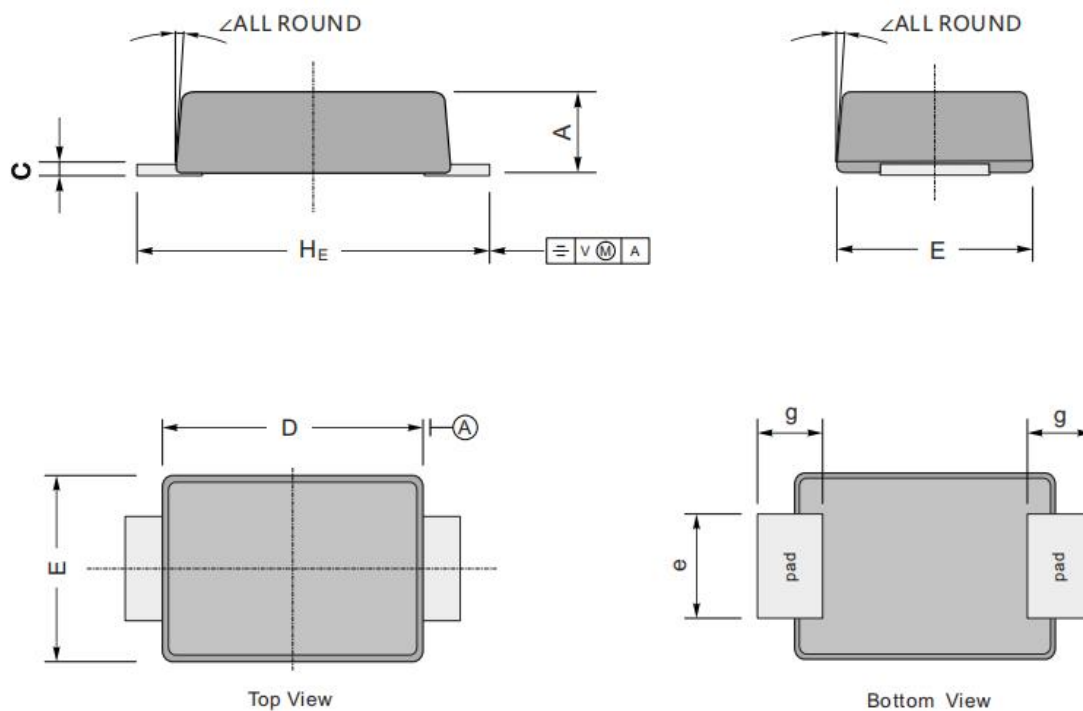
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	US1AF-US1DF -6AF	US1GF -6AF	US1JF-US1MF -6AF	Unit 单位	Condition 条件
Forward Voltage 正向电压	V_F	1.0	1.4	1.7	V	$I_F=2\text{A}$
Reverse Current 反向电流	I_R	5($T_A=25^{\circ}\text{C}$) 50($T_A=100^{\circ}\text{C}$)			μA	$V_R=V_{RRM}$
Reverse Recovery Time 反向恢复时间	T_{rr}	50		75	nS	$I_F=0.5\text{A}, I_R=1\text{A}$ $I_{rr}=0.25\text{A}$
Junction Capacitance 结电容	C_J	15			pF	$V_R=4\text{V}, f=1\text{MHz}$

■ Typical Characteristic Curve 典型特性曲线



■Dimension 外形封装尺寸



UNIT		A	C	D	E	e	g	H_E	$\angle$
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	