

SMBF Super Fast Recovery Diode 超快恢复二极管
■Features 特点

Fast Switching Speed 快的开关速度

Super Fast Recovery time 超快恢复时间

Glass passivated chip junction 玻璃钝化芯片保护结

Surface Mount Device 表面贴装器件

Case 封装:SMBF


■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	ES3 ABF	ES3 BBF	ES3 CBF	ES3 DBF	ES3 EBF	ES3 GBF	ES3 JBF	Unit 单位
Repetitive Peak Reverse Voltage 重复峰值反向电压	V_{RRM}	50	100	150	200	300	400	600	V
DC Reverse Voltage 直流反向电压	V_R	50	100	150	200	300	400	600	V
RMS Reverse Voltage 反向电压均方根值	$V_{R(RMS)}$	35	70	105	140	210	280	420	V
Forward Rectified Current 正向整流电流	I_F	3							A
Peak Surge Current 峰值浪涌电流	I_{FSM}	80							A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	90							$^{\circ}\text{C}/\text{W}$
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	ES3ABF-ES3DBF	ES3EBF-ES3GBF	ES3JBF	Unit 单位	Condition 条件
Forward Voltage 正向电压	V_F	0.95	1.25	1.7	V	$I_F=3\text{A}$
Reverse Current 反向电流	I_R	$5(T_A=25^{\circ}\text{C})$ $500(T_A=100^{\circ}\text{C})$			μA	$V_R=V_{RRM}$
Reverse Recovery Time 反向恢复时间	T_{rr}	35			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	60			pF	$V_R=4\text{V}, f=1\text{MHz}$

■ Typical Characteristic Curve 典型特性曲线

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

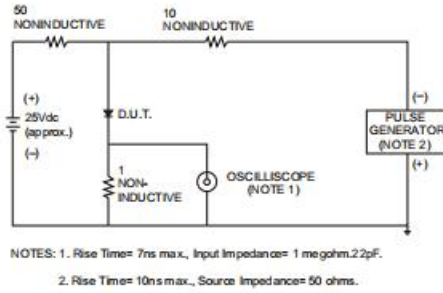


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

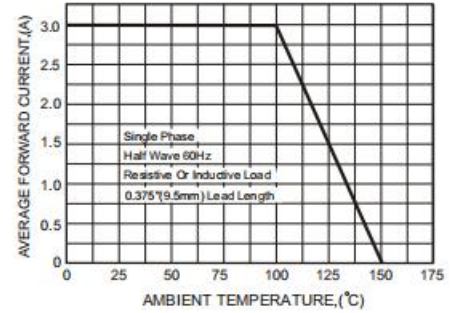


FIG.3-TYPICAL FORWARD CHARACTERISTICS

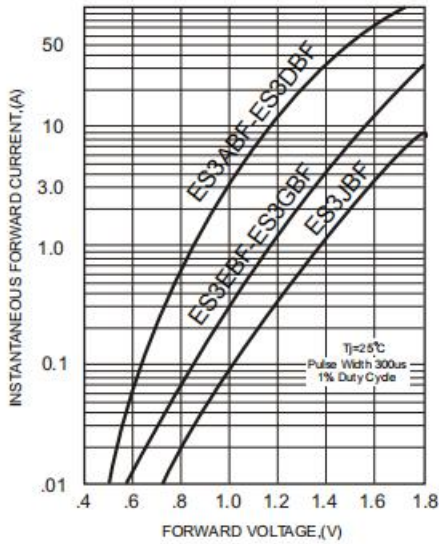


FIG.4-TYPICAL REVERSE CHARACTERISTICS

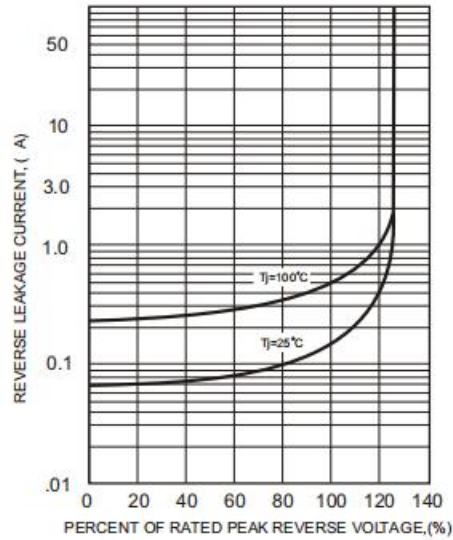


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

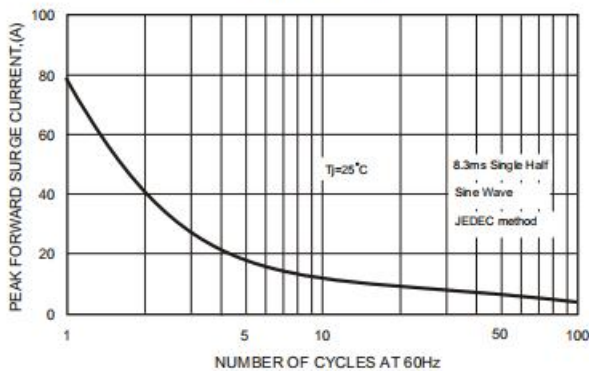
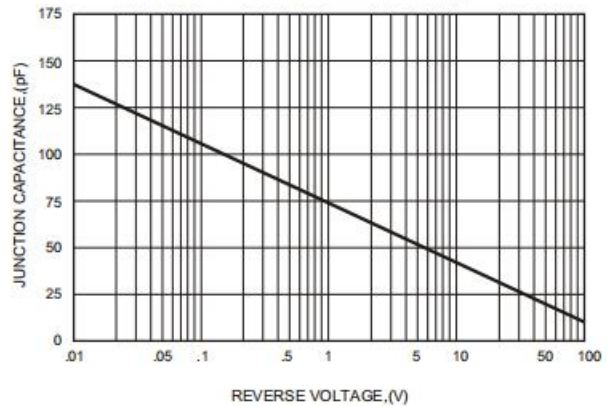


FIG.6-TYPICAL JUNCTION CAPACITANCE



■Dimension 外形封装尺寸

