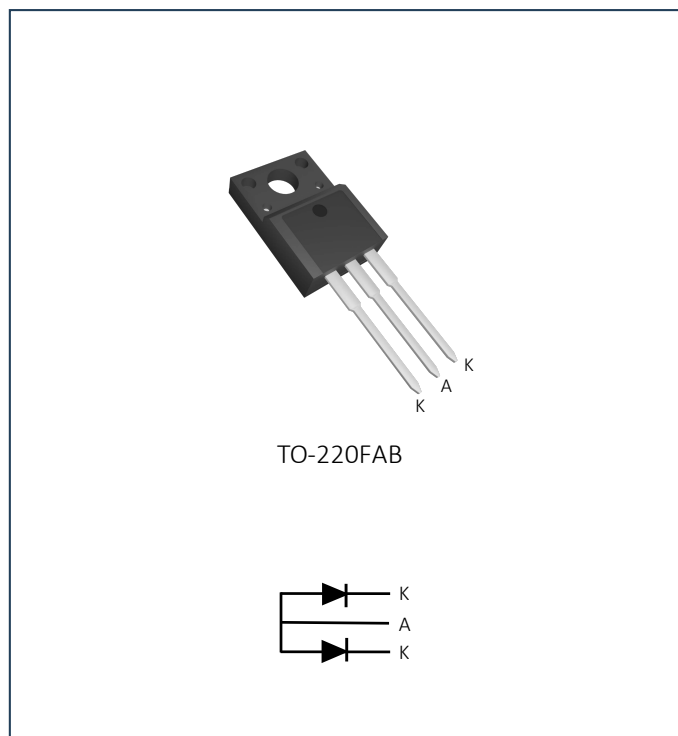


DSEA30S04F

超快软恢复特性二极管整流器

Ultra Soft Recovery Rectifier

封装外形 Package



主要参数 Device summary

Symbol	Value
$I_F(AV)$	30A
V_{RRM}	400V
$V_F(typ)$	1.06V@15A 125°C
$I_R(typ)$	0.05mA@400V 125°C
$T_{j(max)}$	175°C

机械数据 Mechanical Data

- 模塑料符合 UL 94 V-0 易燃等级, 符合 RoHS 标准
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- 端子: 镀锡引线, 可焊接 J-STD-002 和 JESD22-B102
Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- 极性: 本体标记
Polarity: As marked on body

产品特点 Features

超软恢复时间 Ultra soft recovery times

超快恢复时间 Ultra-fast recovery time

低正向压降 Low forward voltage

高结温 High Junction temperature

低漏电 Low leakage current

高可靠性 High reliability

环保产品 RoHS product

TO-220FAB 绝缘电压:

TO-220FAB Package Insulated voltage:

≥3000VDC t=100ms

最大额定值 Maximum ratings

项目 Parameter	符合 Symbol	数值 Value	单位 Unit
反向电压 Peak repetitive reverse voltage	V_{RRM}	400	V
平均正向电流 Average forward current	$I_{F(AV)}$	30 15	A
浪涌电流 Non-repetitive single pulse surge current $t=8.3ms$	I_{FSM}	200	A
结温 Junction temperature	T_j	-55~+175	°C
存储温度 Storage temperature	T_{STG}	-55~+175	°C

电特性 Electrical characteristics($T_c=25^{\circ}C$)

项目 Parameter	测试条件 Tests conditions		数值 Value			单位 Unit
			最小值(min)	典型值(typ)	最大值(max)	
反向电压 V_{RRM}	$I_R=0.05mA$		400	-	-	V
反向漏电流 I_R	$T_j=25^{\circ}C$	$V_R=V_{RRM}$	-	-	0.03	mA
	$T_j=125^{\circ}C$		-	-	0.3	
正向电压 V_F	$T_j=25^{\circ}C$	$I_F=15A$	-	-	1.3	V
	$T_j=125^{\circ}C$	$I_F=1A$	-	0.63	-	
		$I_F=7.5A$	-	0.91	-	
		$I_F=15A$	-	1.06	-	
反向恢复时间 T_{rr}	$T_j=25^{\circ}C$	Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	-	-	35	nS

热特性 Thermal characteristics($T_c=25^{\circ}C$)

项目 Parameter	符合 Symbol	数值 Value	单位 Unit
热阻 Thermal resistance from junction to case	$R_{th(j-c)}$	2.5	°C/W

典型特征曲线图 Typical Characteristic Curve

图 1: 正向电流与外壳温度

FIG 1: I_F - T_c

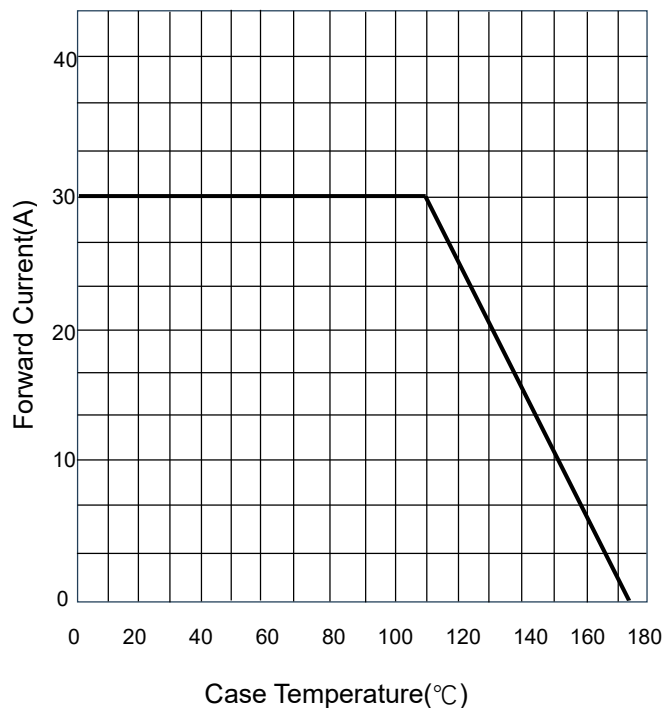


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

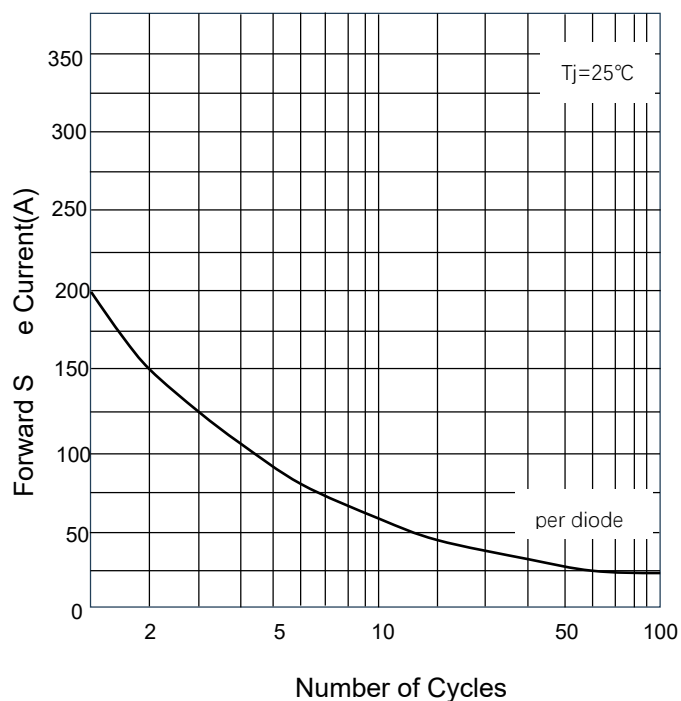


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

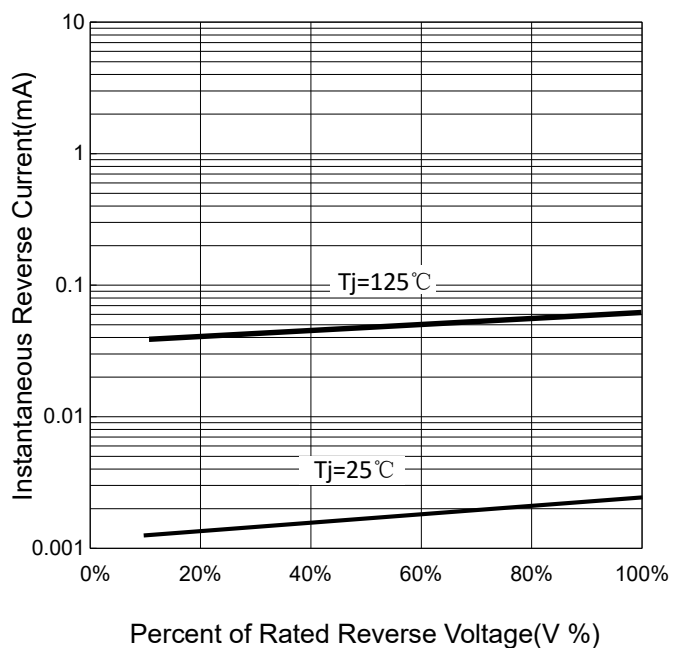
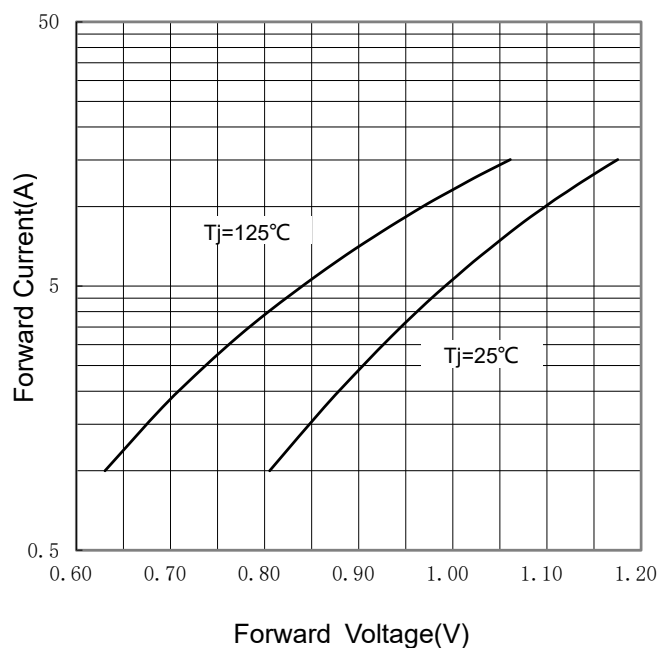
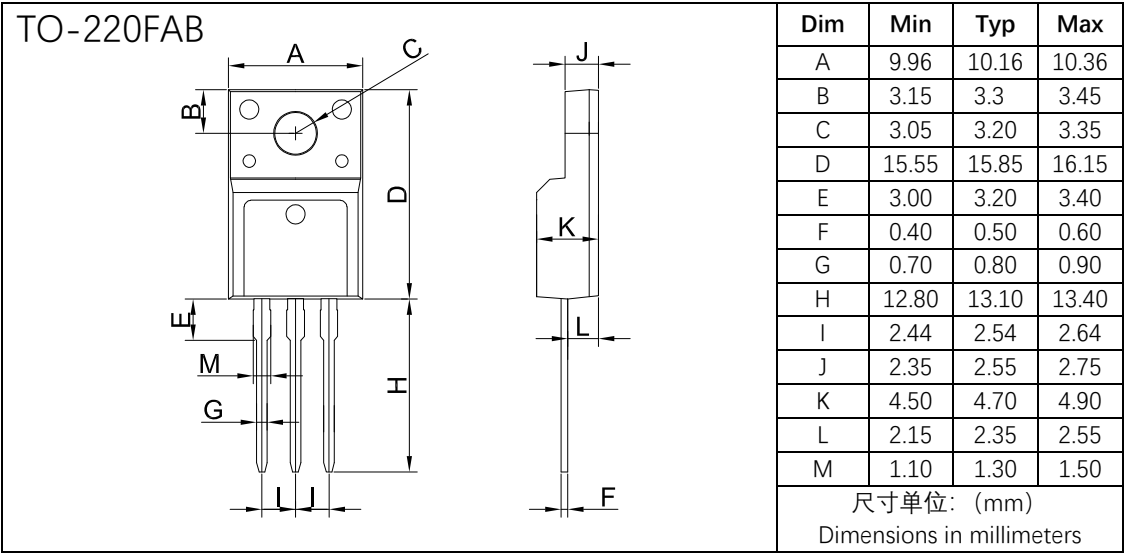


图 4: 正向电流与正向电压

FIG 4: I_F - V_F



外形尺寸图及焊盘布局参考 Outline Dimensions and Pad Layout Reference



订购信息 Ordering Information

订单型号 Order code	印记 Marking	封装 Package	重量 Weight (g)	包装形式 Packing	基本包装 Base qty (pcs)	盒 Box (pcs)	箱 Carton (pcs)
WDSEA30S04F000P	DSEA30S04F	TO-220FAB	1.7	管装 Tube	50	1000	5000

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