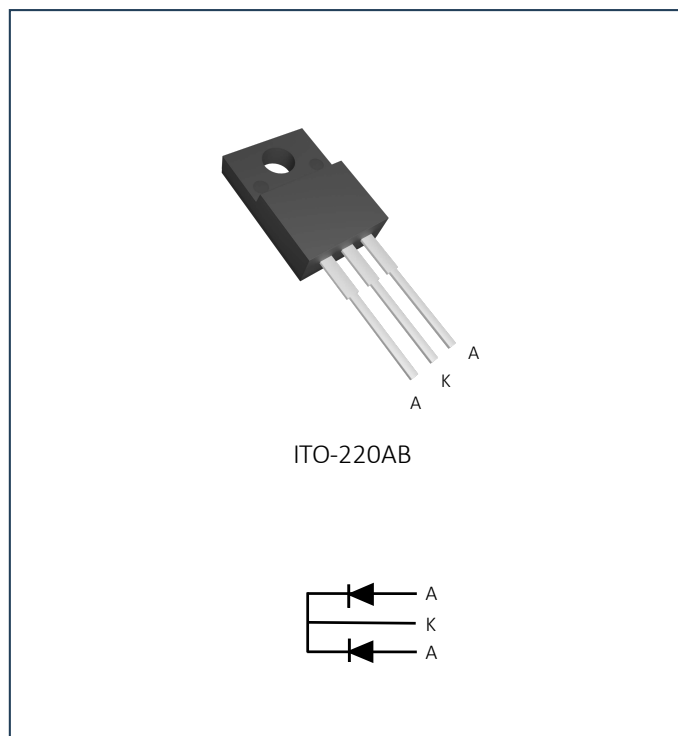


DSEK12S04F

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
$I_F(AV)$	12A
V_{RRM}	400V
$V_F(typ)$	0.99V@6A 125°C
$I_R(typ)$	0.02mA@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

ITO-220AB 绝缘电压:

ITO-220AB 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	$I_{F(AV)}$	12	A
	per diode	6	A
浪涌电流 Non-repetitive single pulse surge current $t=8.3ms$	I_{FSM}	85	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
			最小值(min)	典型值(typ)	最大值(max)	Unit
反向电压 V _{RRM}	I _R =0.05mA		400	-	-	V
反向漏电流 I _R	T _j =25℃	V _R =V _{RRM}	-	-	0.03	mA
	T _j =125℃		-	-	0.3	
正向电压 V _F	T _j =25℃	I _F =6A	-	-	1.3	V
	T _j =125℃	I _F =1A	-	0.72	-	
		I _F =3A	-	0.88	-	
		I _F =6A	-	0.99	-	
反向恢复时间 T _{rr}	T _j =25℃	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	$R_{th(j-c)}$	4.5	°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

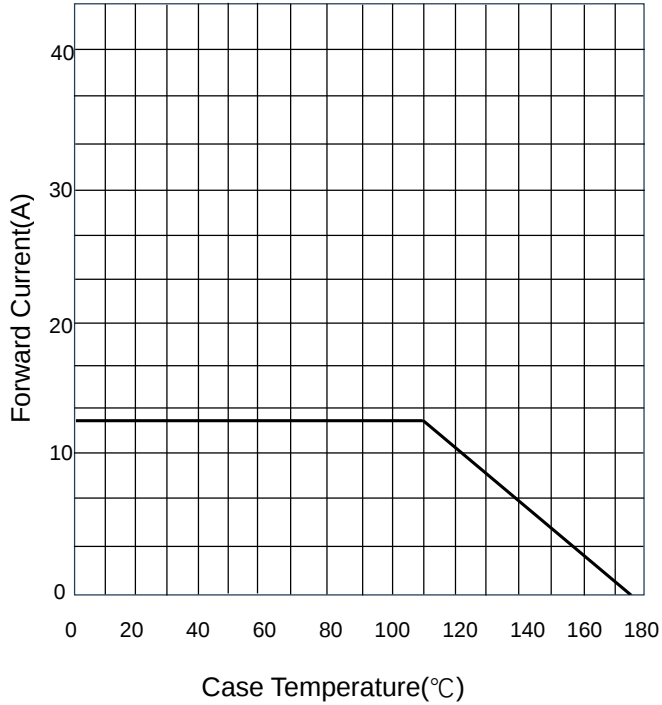


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

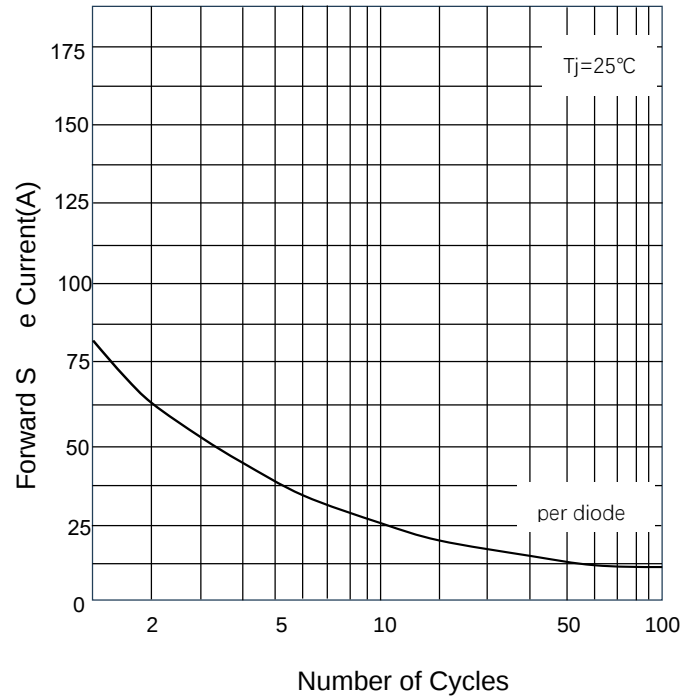


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

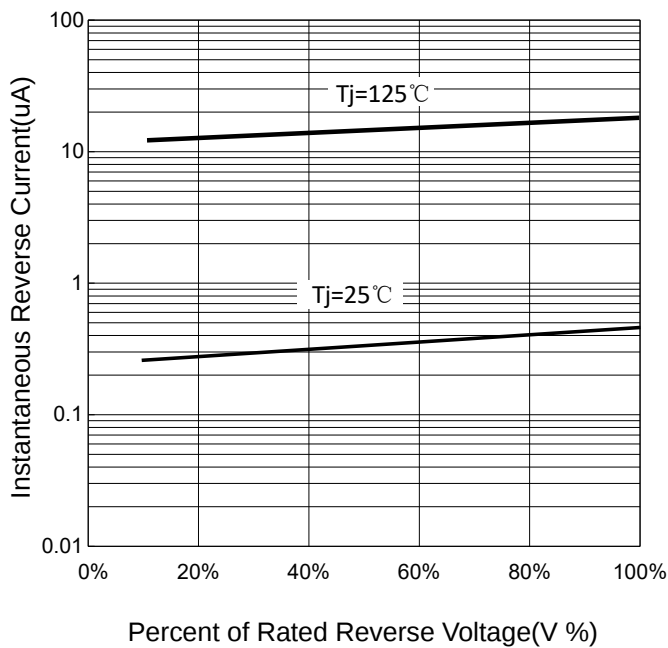
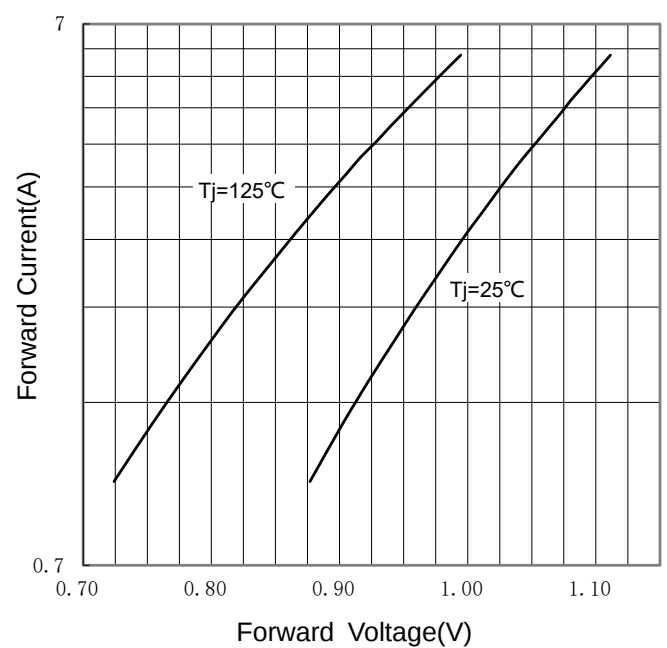


图 4: 正向电流与正向电压

FIG 4: I_F - V_F



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

ITO-220AB

The image contains two technical drawings of the ITO-220AB component. The left drawing is a top-down view showing a rectangular body with a central circular feature and two smaller circles on either side. Dimensions A, B, C, D, E, G, H, I, J, K, L, and M are labeled with arrows indicating their respective measurements. The right drawing is a side profile view showing the component's height and various steps or changes in diameter. Dimensions J, K, L, and F are labeled with arrows indicating their respective measurements.

Dim	Min	Typ	Max
A	9.70	10.00	10.30
B	3.00	3.20	3.40
C	3.10	3.25	3.40
D	15.10	15.40	15.70
E	3.60	3.80	4.00
F	0.45	0.55	0.65
G	0.50	0.60	0.70
H	12.80	13.20	13.60
I	2.44	2.54	2.64
J	2.50	2.70	2.90
K	4.20	4.40	4.60
L	2.60	2.70	2.80
M	1.20	1.30	1.40
尺寸单位: (mm) Dimensions in millimeters			

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)
WDSEK12S04F000P	DSEK12S04F	ITO-220AB	1.7	管装 Tube	50	1000	5000

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