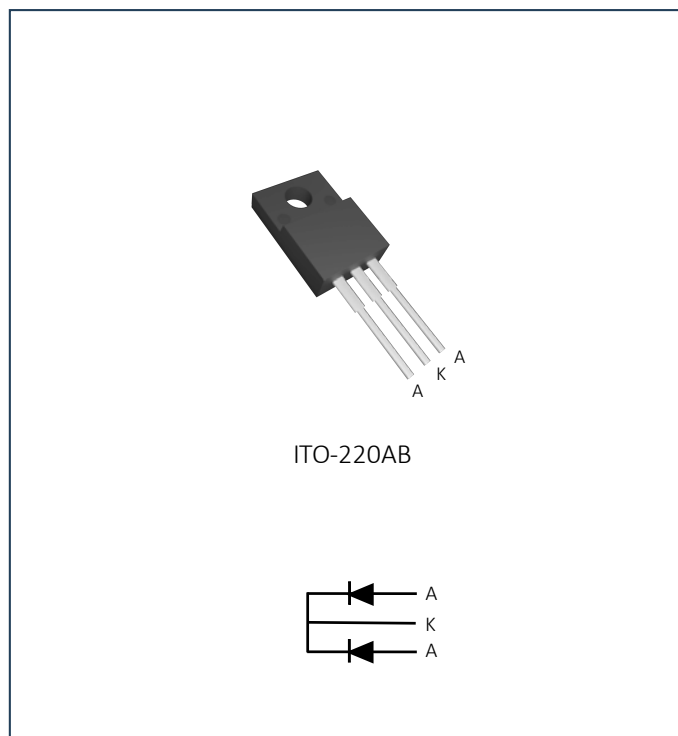


DSEK2007F

超快恢复二极管整流器

Super Fast Recovery Rectifier

封装外形 Package



主要参数 Device summary

Symbol	Value
$I_F(AV)$	20A
V_{RRM}	700V
$V_F(typ)$	1.23V@10A 125°C
$I_R(typ)$	0.05mA@700V 125°C
$T_j(max)$	150°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

超快恢复时间 Ultra-fast recovery time
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:
 $\geq 3000V V_{DC} t=100ms$

最大额定值 Maximum ratings

项目 Parameter	符合 Symbol	数值 Value	单位 Unit
反向重复峰值电压 Peak repetitive reverse voltage	V_{RRM}	700	V
平均正向电流 Average forward current	$I_{F(AV)}$	20	A
	per diode	10	A
浪涌电流 Non-repetitive single pulse surge current $t=8.3ms$	I_{FSM}	150	A
结温 Junction temperature	T_j	-55~+150	°C
存储温度 Storage temperature	T_{STG}	-55~+150	°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)	
反向重复峰值电压 V_{RRM}	$I_R=0.05mA$		700	-	-	V
反向漏电流 I_R	$T_j=25^\circ C$	$V_R=V_{RRM}$	-	-	0.05	mA
	$T_j=125^\circ C$		-	-	0.5	
正向电压 V_F	$T_j=25^\circ C$	$I_F=10A$	-	-	2.5	V
	$T_j=125^\circ C$	$I_F=1A$	-	0.67	-	
		$I_F=5A$	-	1.01	-	
		$I_F=10A$	-	1.23	-	
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	$R_{th(j-c)}$	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

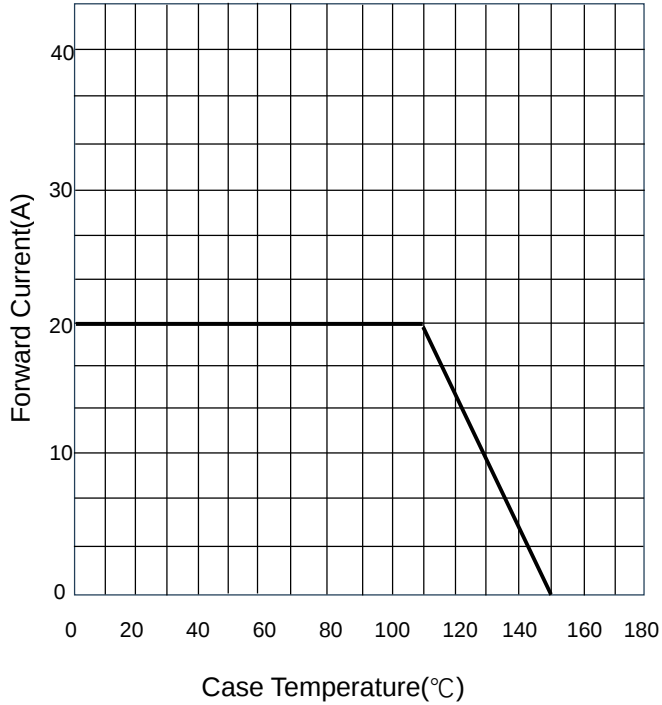


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

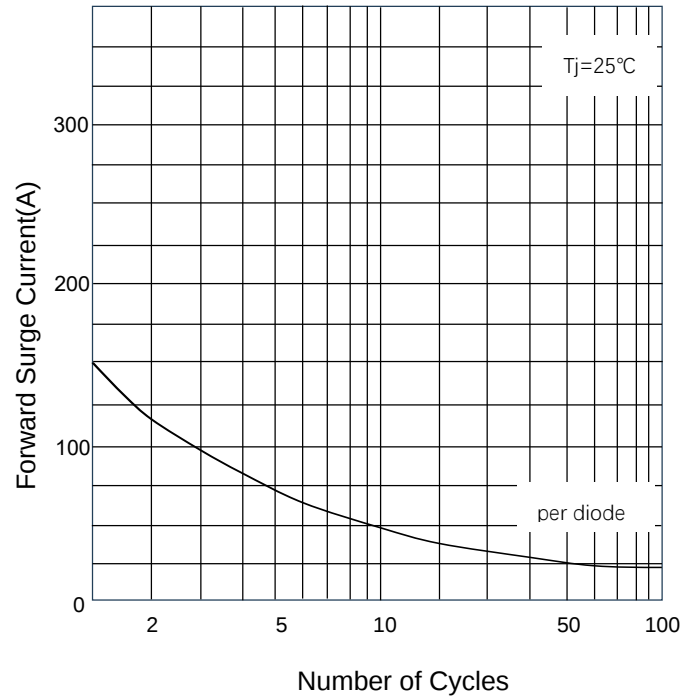


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

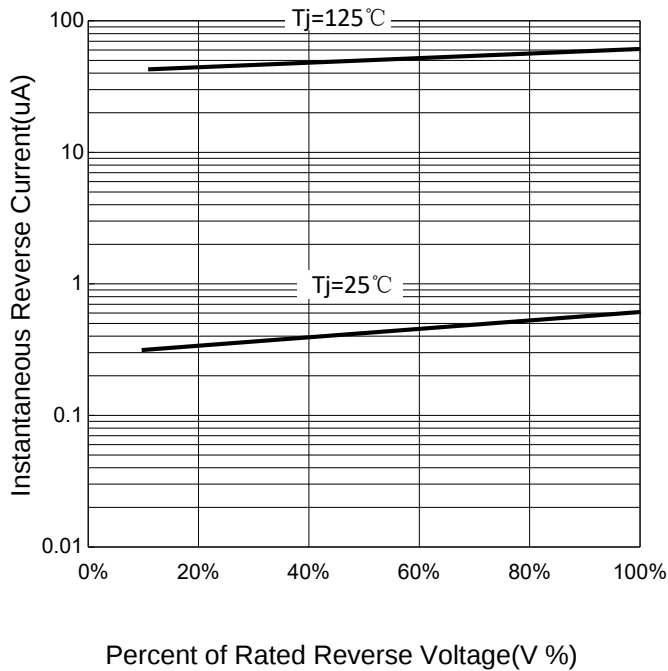
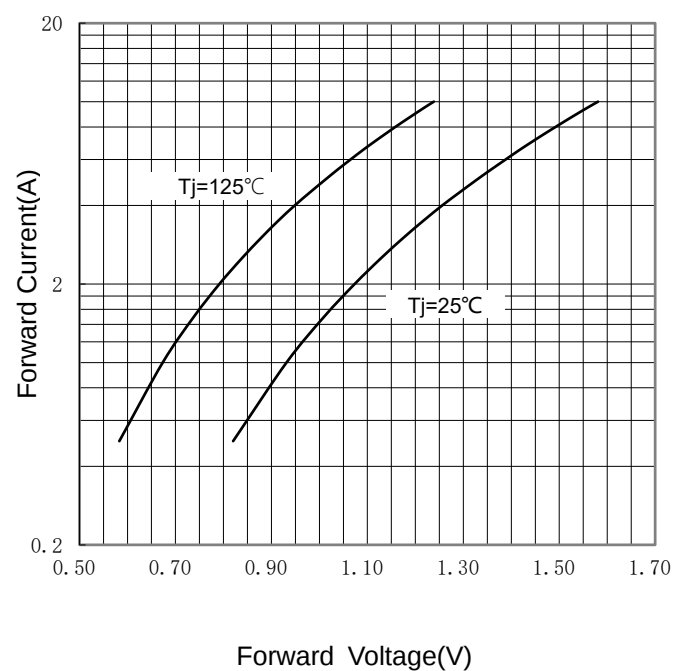
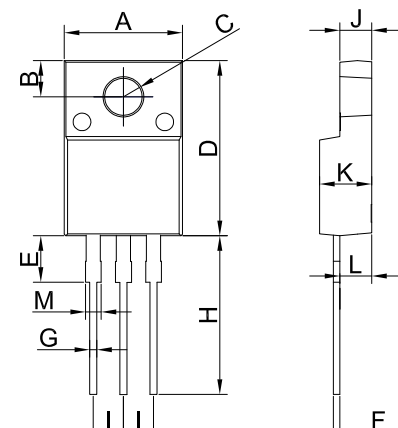


图 4: 正向电流与正向电压

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		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)
CDSEK2007F000P	DSEK2007F	ITO-220AB	1.5	管装 Tube	50	1000	5000

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