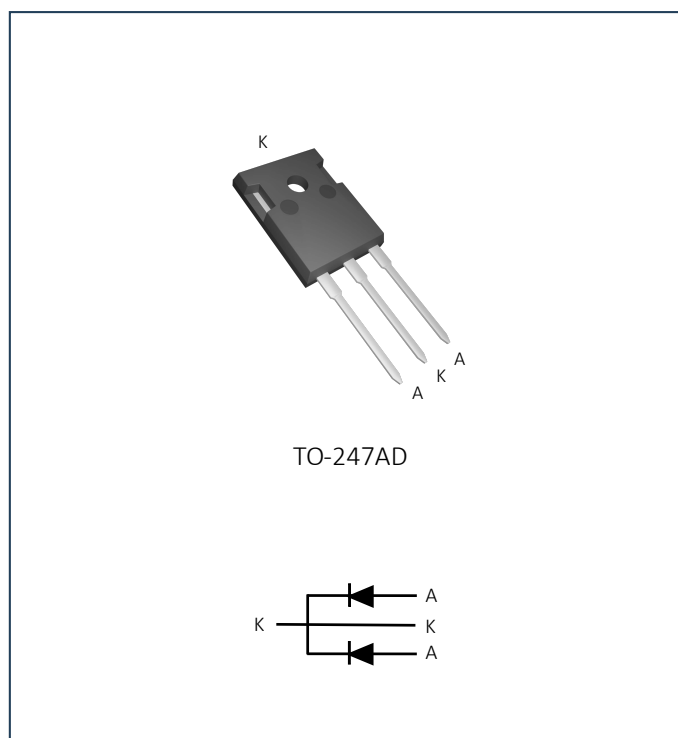


DSEK4004P

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
$I_F(AV)$	40A
V_{RRM}	400V
$V_F(typ)$	1.03V@20A 125°C
$I_R(typ)$	0.05mA@400V 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

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}	400	V
平均正向电流 Average forward current	$I_{F(AV)}$	40 20	A
浪涌电流 Non-repetitive single pulse surge current $t=8.3ms$	I_{FSM}	300	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}	$I_R=0.05mA$		400	-	-	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	$T_j=25^{\circ}C$	$I_F=20A$	-	-	1.40	V
	$T_j=125^{\circ}C$	$I_F=1A$	-	0.56	-	
		$I_F=10A$	-	0.86	-	
		$I_F=20A$	-	1.03	-	
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	$R_{th(j-c)}$	1.0	°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

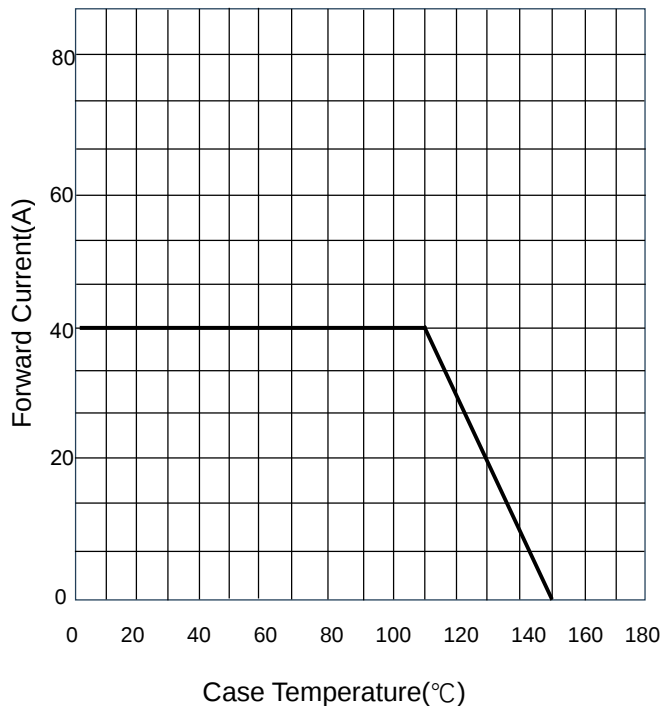


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

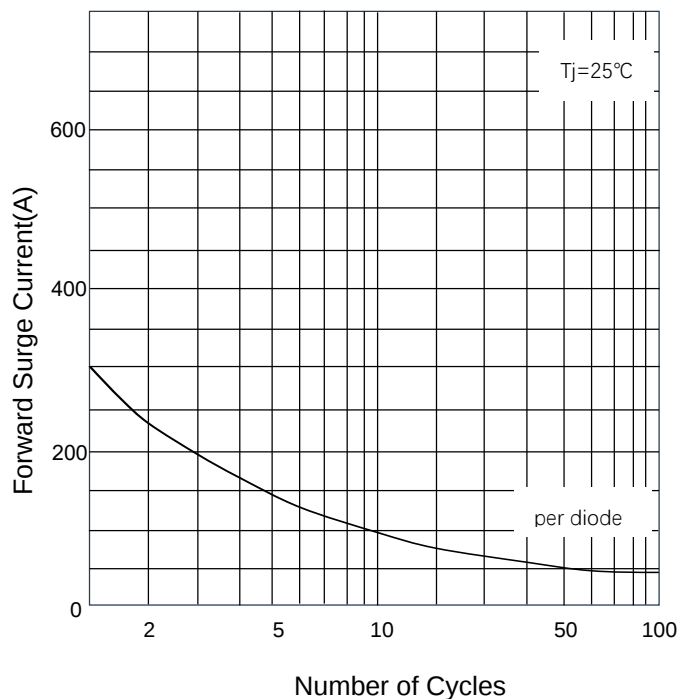


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

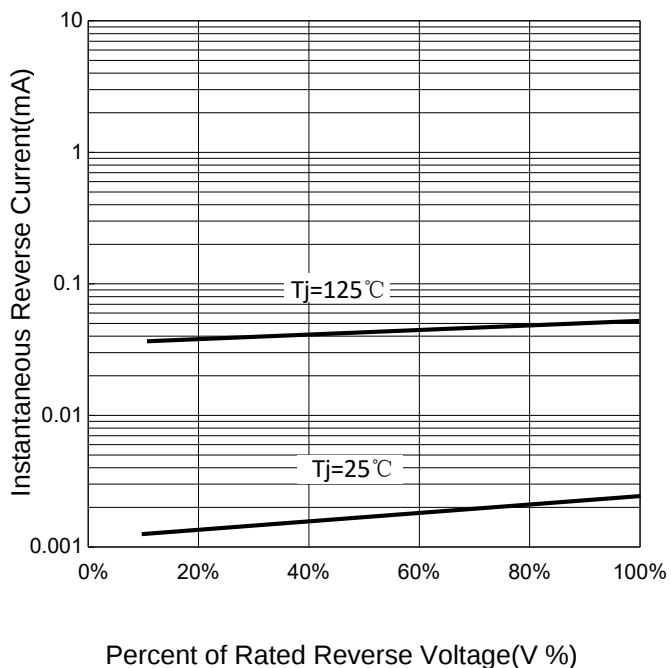
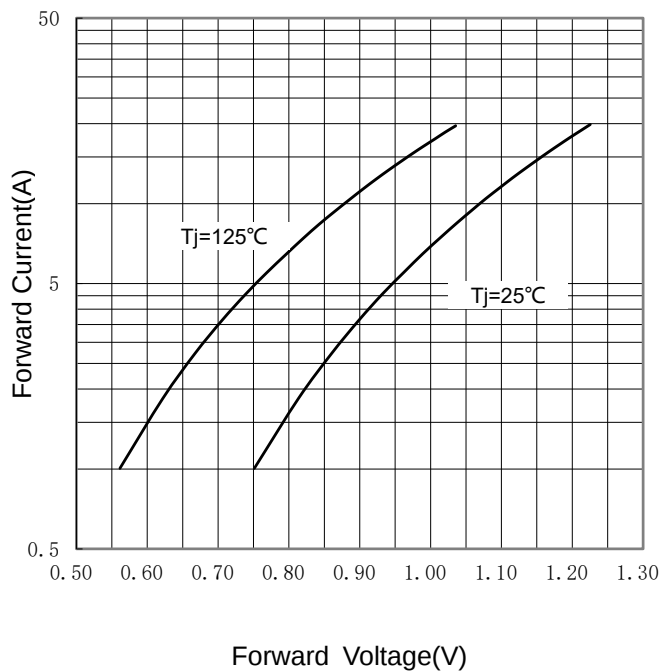
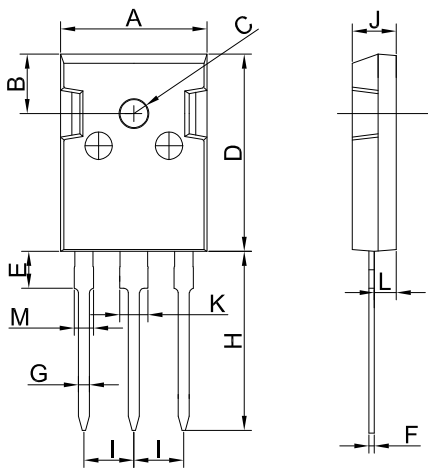


图 4: 正向电流与正向电压

FIG 4: I_F - V_F



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

TO-247AD		Dim	Min	Typ	Max
		A	15.80	16.00	16.20
		B	6.30	6.50	6.70
		C	3.05	3.20	3.35
		D	21.20	21.50	21.80
		E	3.80	4.00	4.20
		F	0.50	0.60	0.70
		G	1.00	1.20	1.40
		H	19.20	19.50	19.70
		I	5.35	5.45	5.60
		J	4.60	4.80	5.00
		K	2.90	3.10	3.30
		L	2.20	2.40	2.60
		M	1.90	2.10	2.30
		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)
CDSEK4004P000P	DSEK4004P	TO-247AD	5.82	管装 Tube	30	600	2400

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