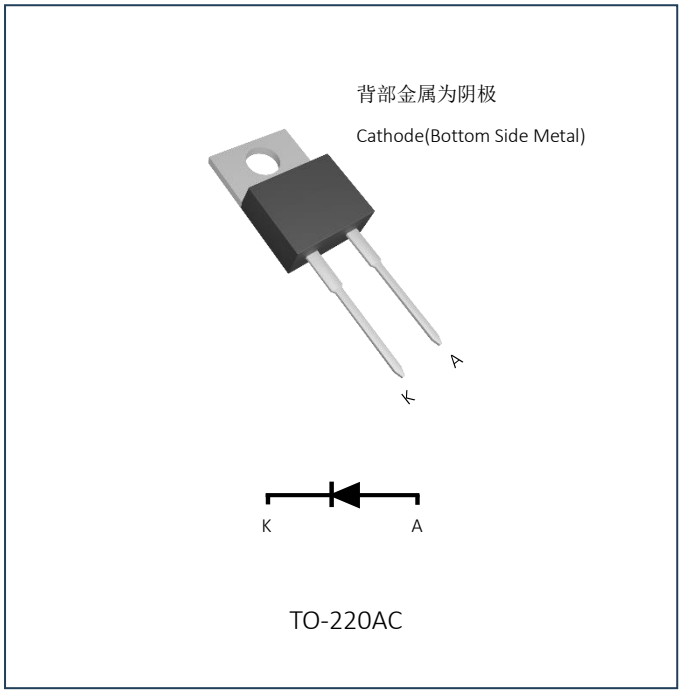
DSE8S12

超快软恢复整流

ULTRA SOFT RECOVERY RECTIFIER

封装外形 Package



TO-220AC

主要参数 Device summary

Symbol	Value
$I_{F(AV)}$	8A
V_{RRM}	1200V
$V_{F(typ)}$	1.60V@8A 125℃
$I_{R(typ)}$	10μA@V_{RRM} 125℃
$T_{j(max)}$	175℃

产品特点 Features

- 外延芯片 FRED chip
- 低正向压降 Low Forward Voltagle
- 软恢复特性 Soft Recovery Features
- 符合 RoHS 指令 2011/65/EU
  Compliant to RoHS directive 2011/65/EU
- 焊料浸渍温度最高为 275℃，持续 7 秒
  Solder dip 275 °C max. 7 s

产品应用 Typical Applications

开关电源，变换器，续流二极管和电池反向保护等。

Typical applications are in switching power supplies, converters, freewheeling diodes and reverse battery protection.

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
- 重量：约 1.8 克
  Weight: Approximate 1.8g

最大额定值 Maximum ratings(Ta=25℃)

项目 Parameter	符号 Symbol	数值 Value	单位 Unit
反向重复峰值电压 Peak repetitive reverse voltage	V_{RRM}	1200	V
正向电流 Forward current	I_F	8	A
浪涌电流 Non-repetitive single pulse surge current t=8.3ms	I_{FSM}	80	A
结温 Junction temperature	T_j	-55~+175	℃
存储温度 Storage temperature	T_{STG}	-55~+175	℃

电特性 Electrical characteristics(Ta=25℃)

项目 Parameter	测试条件 Tests conditions		数值 Value 最小值 (min)	数值 Value 典型值 (typ)	数值 Value 最大值 (max)	单位 Unit
V_{RRM} 反向电压	I_R=0.05mA		1200	-	-	V
I_R 反向漏电	T_j=25℃	V_R=V_{RRM}	-	-	10	μA
	T_j=125℃		-	-	250	
V_F 正向电压	T_j=25℃	I_F=8A	-	-	2.50	V
	T_j=100℃	I_F=2A	-	1.20	-	
		I_F=4A	-	1.40	-	
	T_j=125℃	I_F=2A	-	1.10	-	
		I_F=4A	-	1.30	-	
Trr 反向恢复时间	T_j=25℃	I_F=0.5A I_{RM}=1A I_{RR}=0.25A	-	-	42	ns

热特性 Thermal characteristics(Ta=25℃)

Parameter	Symbol	Value	Unit
结到外壳热阻 Thermal resistance from junction to case	$R_{th(j-c)}$	2.0	℃/W

典型特征图 Typical Characteristics

图 1：正向电流与外壳温度

FIG 1:IF-Tc

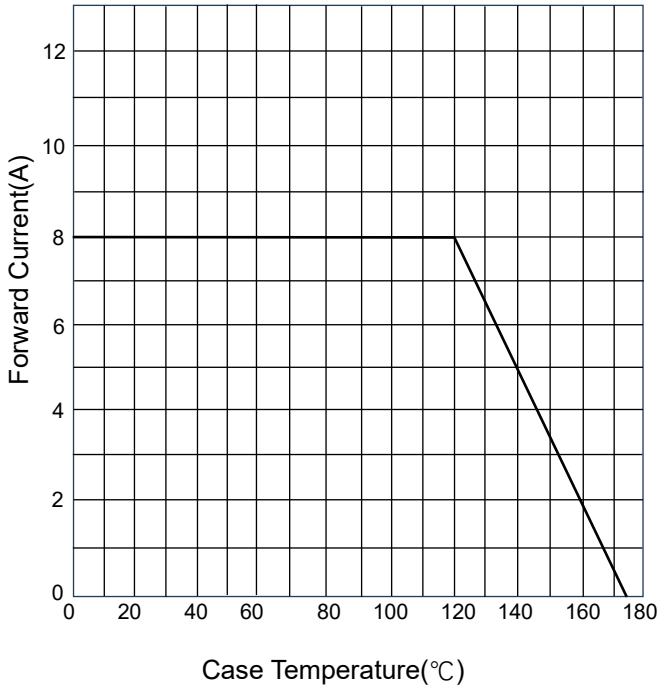


图 2：正向浪涌循环次数

FIG 2:Surge Forward Current Capability

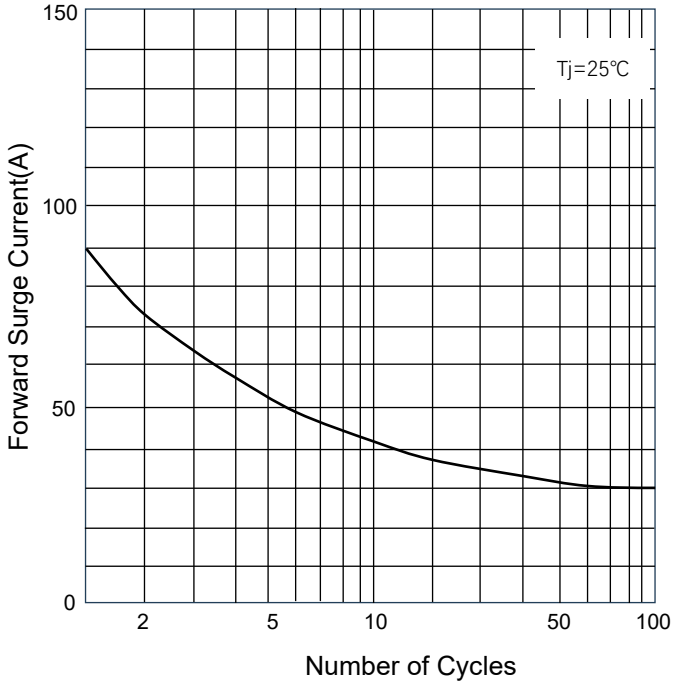


图 3：反向电压与反向电流

FIG 3:VR-IR

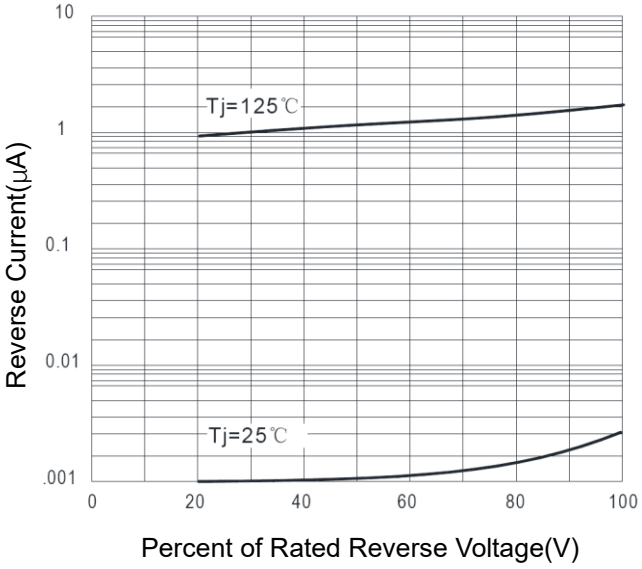
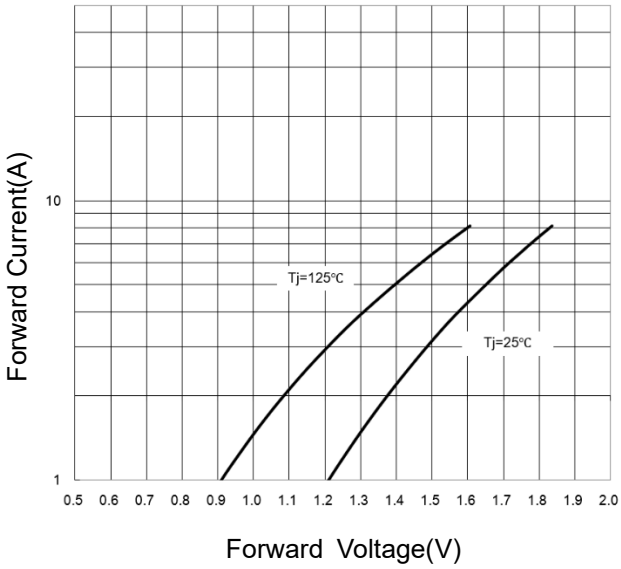
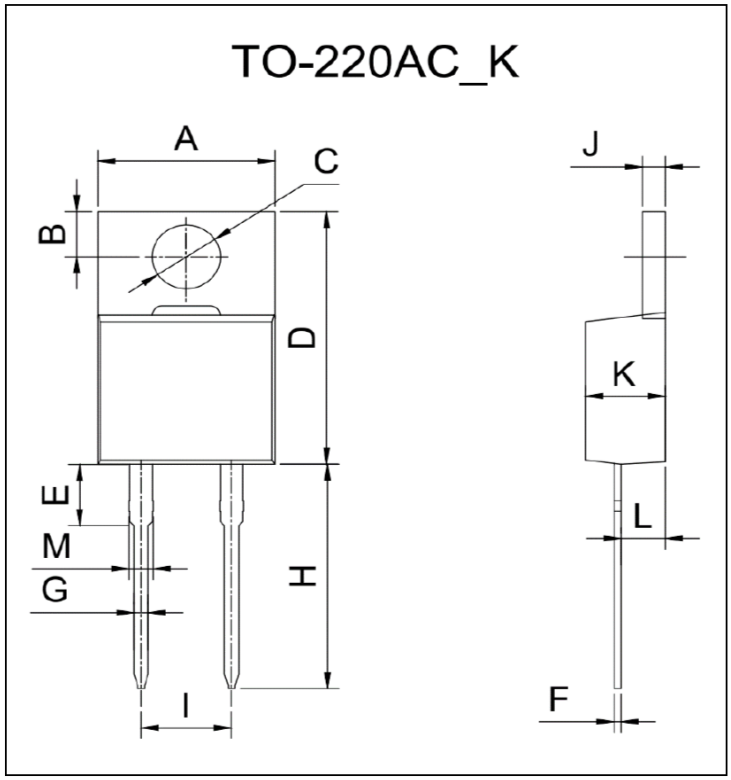


图 4：正向电流与正向电压

FIG 4:IF-VF



外形尺寸 Outline Dimensions



TO-220AC_K(mm)			
Dim	Min	Typ	Max
A	9.80	10.10	10.40
B	2.60	2.74	2.90
C	3.69	3.84	3.99
D	14.95	15.25	15.55
E	3.50	3.80	4.10
F	0.28	0.38	0.48
G	0.60	0.80	1.00
H	13.30	13.60	13.90
I	4.88	5.08	5.28
J	1.17	1.27	1.37
K	4.30	4.50	4.70
L	2.30	2.50	2.70
M	1.10	1.30	1.50

订购信息 Ordering Information

订单型号 Order code	印记 Marking	基本包装 Min PKG (pcs)	盒 Box pcs	箱 Carton pcs	重量 Weight Kg
DSE8S12G	DSE8S12	50	1000	5000	14.0
DSE8S12H					

注 note:

1. “G”为无铅版本，“H”为无卤版本。“G” is Lead-free version, “H” is Halogen-free version.

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