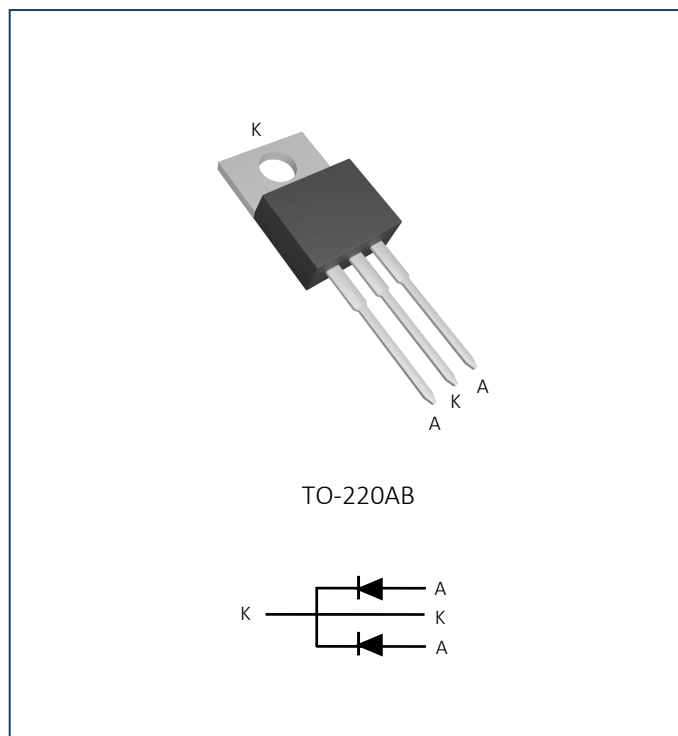


DSCK10120

碳化硅肖特基二极管

Silicon Carbide Schottky Diode

封装外形 Package



主要参数 Device summary

Symbol	Value
$I_{F(AV)}$	10A
V_{RRM}	1200V
$V_F(typ)$	2.11V@5A 175°C
$I_R(typ)$	0.002mA@1200V 175°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

- 高频运行 High frequency operation
- 超快开关速度 Ultra fast switching speed
- 零反向恢复电流 Zero reverse recovery current
- 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
反向电压 Peak repetitive reverse voltage	VRRM	1200	V
正向电流 forward current	IF(AV)	Tc=25℃ 19*/38A**	A
		Tc=160℃ 5*/10A**	
浪涌电流 Non-repetitive single pulse surge current t=10ms	IFSM	65*	A
功率耗散 Power Dissipation	Ptot	Tc=110℃ 57*	W
结温 Junction temperature	Tj	-55~+175	℃
存储温度 Storage temperature	TSTG	-55~+175	℃

电特性 Electrical characteristics(Tc=25℃)

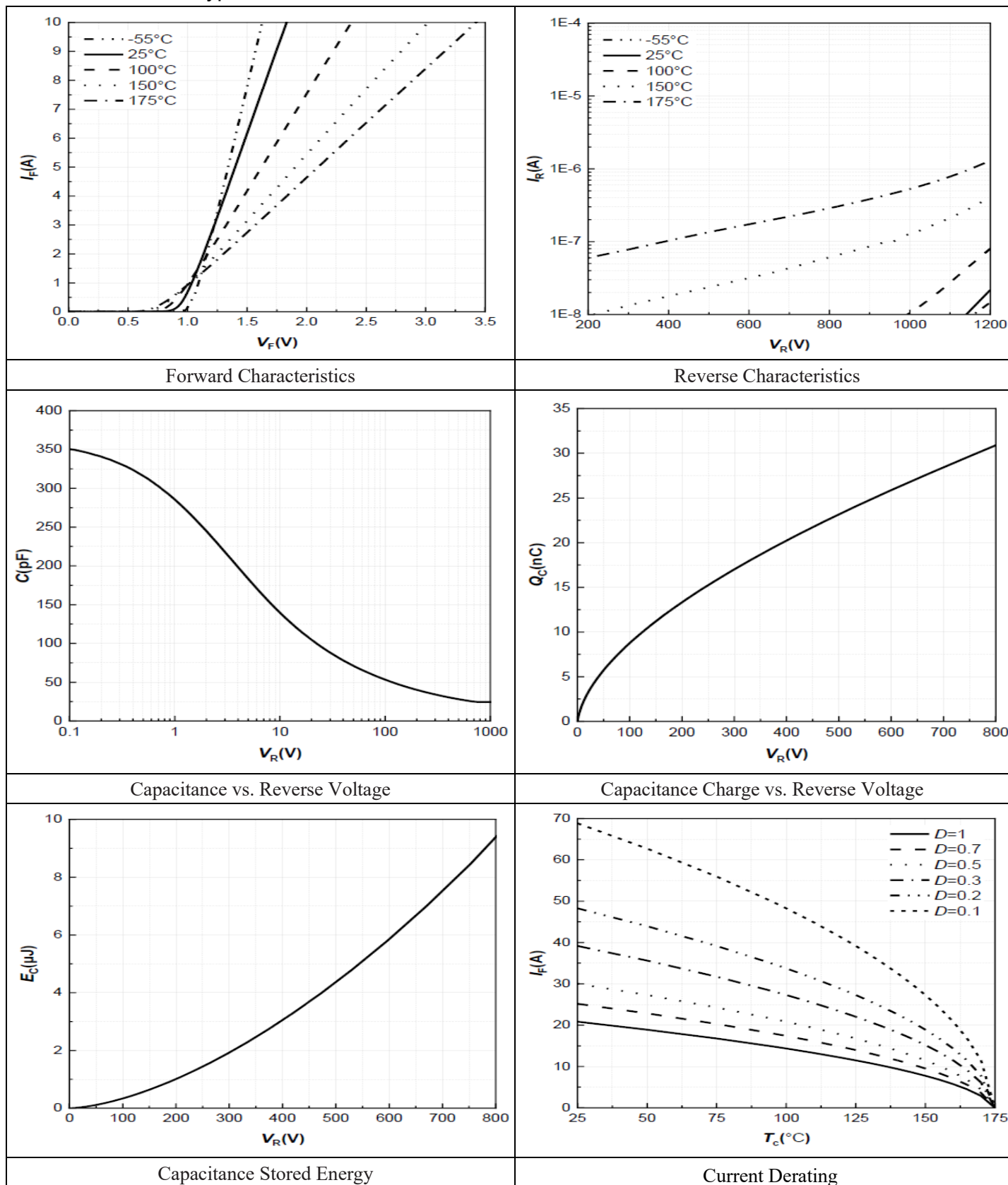
项目 Parameter	测试条件 Tests conditions		数值 Value			单位 Unit
			最小值(min)	典型值(typ)	最大值(max)	
反向电压 VRRM	IR=0.05mA		1200	-	-	V
反向漏电流 IR	Tj=25℃	VR=1200V	-	0.001	0.2	mA
	Tj=175℃		-	0.002	0.4	
正向电压 VF	Tj=25℃	IF=5A	-	1.40	1.58	V
	Tj=175℃		-	2.11	2.66	
总电容电荷量 QC	Tj=25℃	VR=800V QC= ∫ 0VRC(V)dVp	-	31*	-	nC
总电容量 C	Tj=25℃	VR=1V, f=1MHZ		288*		pF
		VR=400V, f=1MHZ		31*		
		VR=800V, f=1MHZ		25*		
电容储存能量 EC		VR=800V		9.4*		μJ

热特性 Thermal characteristics(Tc=25℃)

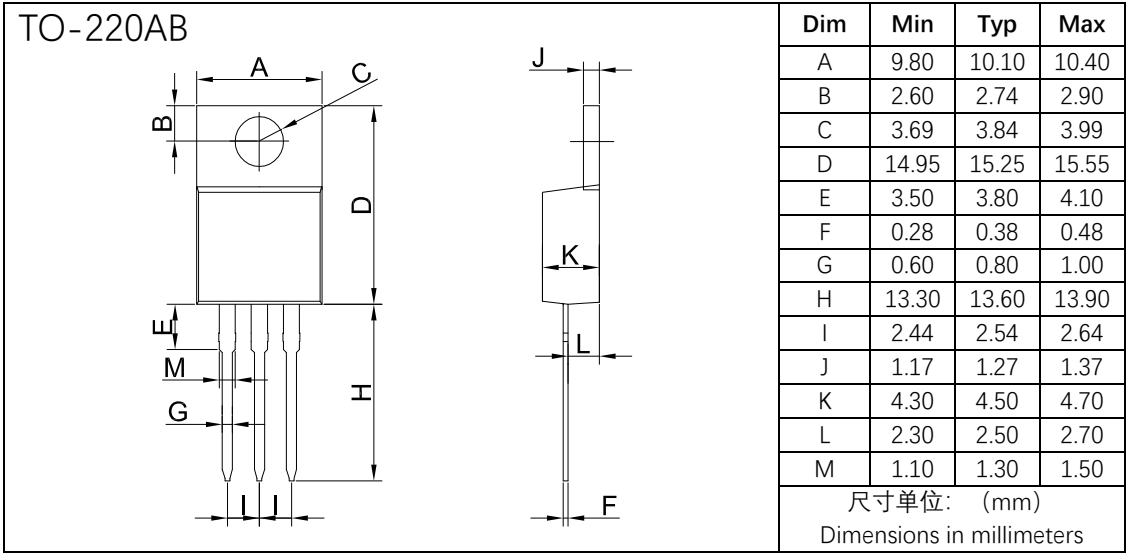
项目 Parameter	符合 Symbol	数值 Value	单位 Unit
热阻 Thermal resistance from junction to case	Rth(j-c)	1.14*/0.57**	℃/W

*per diode, **per device

典型特征曲线图 Typical Characteristic Curve



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)
WDSCK10120000P	DSCK10120	TO-220AB	1.9	管装 Tube	50	1000	5000

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