

如何正确理解 D SeDad 和 D SeDad 的特性参数

摘要 D SeDad $\left[\begin{matrix} a \\ D \end{matrix} \right]$ D SeDad $\left[\begin{matrix} S \\ S \\ a \\ D \end{matrix} \right]$ dl dl D

关键词 D D

如何正确理解 和 的特性参数

摘要

Diode [a] Diode [S] [a]

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关键词

Diode

1. 前言

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Symbol	Parameter	Test Conditions	max	Unit
V_R	DC reverse voltage		600	V
V_{RRM}	Repetitive Reverse Voltage		600	V
$I_{F(AV)}$	Average Forward Current	$T_c=75^\circ C$, rec,d=0.5	95	A
$I_{F(RMS)}$	RMS Forward Current	$T_c=75^\circ C$	142	A

2. 各部分参数的理解

Diode

Sym bol	Parame- ter	Test Conditions	max	Unit
I _{FSM}	Non-repeti- tive surge forward current	T _j =45 ; t=10ms(50Hz) ,sine	1200	A
		T _j =45 ; t=8.3ms(60H z) ,sine	1300	A
		T _j =75 ; t=10ms(50Hz) ,sine	1080	A
		T _j =75 ; t=8.3ms(60H z) ,sine	1170	A
I ² t	Rating for fusing	T _j =45 ; t=10ms(50Hz) ,sine	7200	A ² s
		T _j =45 ; t=8.3ms(60H z) ,sine	7100	A ² s
		T _j =75 ; t=10ms(50Hz) ,sine	5800	A ² s
		T _j =75 ; t=8.3ms(60H z) ,sine	5700	A ² s
T _J	Junction Tempera- ture Range		-40 to +150	°C
T _{STG}	Storage Tempera- ture Range		-40 to +125	°C
P _{tot}	Total power consump- tion		280	W
V _{isol}		50/60Hz,RMS t=1min	3000	V

$$= I_{F \text{ Peak}} \sqrt{\delta}$$

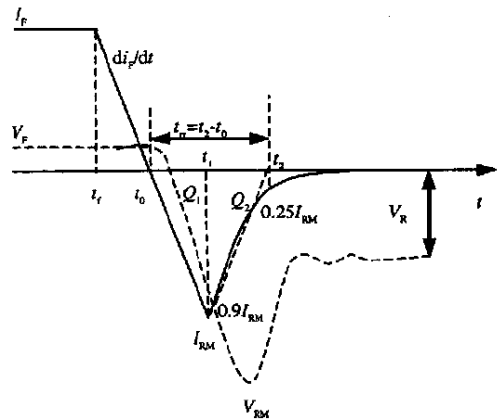
$$P_{tot} = \frac{T_J - T_C}{R_{thjc}}$$

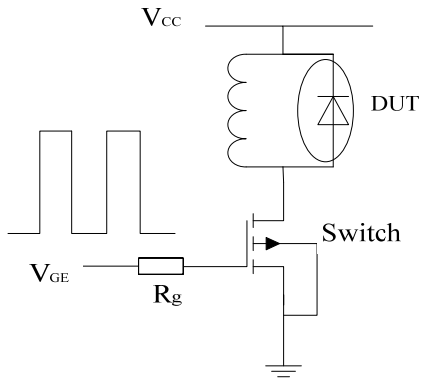
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
t_{rr}	Reverse Recovery Time	$I_F=100$ A $V_R=30$ Max. 0V	--	14	--	ns
		$T_J=100^\circ$ C $di_F/dt=-200A/\mu s$	--	250	300	ns

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Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{RM}	Reverse Leakage Current	$V_R=600V$;	--	--	2	mA
		$V_R=480V$;	--	--	0.5	mA
		$V_R=480V$; $T_J=125^\circ C$			34	mA
V_F	Forward Voltage	$I_F=100A$;	--	--	1.36	V
		$I_F=100A$; $T_J=125^\circ C$			1.55	V
		$I_F=300A$;			2.05	V
		$I_F=300A$; $T_J=125^\circ C$			2.09	V

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Symbol	Parameter	Min	Typ	Max	Unit
$R_{\theta JC}$	Thermal Resistance Junction-to-Case	--	--	0.45	K/W

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D D

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作者简介:

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3. 结论