

MJE13003VK3 (3DD13003VK3)

硅 NPN 半导体三极管/SILICON NPN TRANSISTOR

用途：耐压高，开关速度快，安全工作区宽，符合 RoHS 规范。

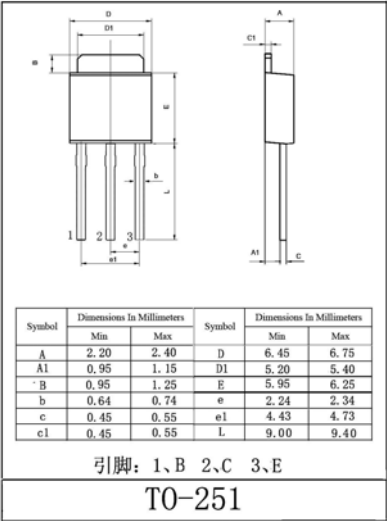
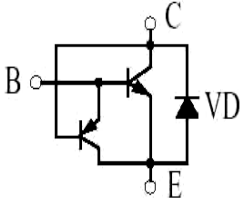
Purpose: High voltage capability, high speed switching, wide soa, RoHS compliant.

特点：适用于 110V 电路、节能灯、电子镇流器。

Features: Suitable for 110V circuit mode, fluorescent lamp, electronic ballast.

极限参数/Absolute maximum ratings(Tc=25℃)

参数符号 Symbol	数值 Rating	单位 Unit
V_{CBO}	400	V
V_{CEO}	200	V
V_{EBO}	9.0	V
I_C	3.0	A
P_C	1.25	W
$P_C(T_c=25^{\circ}C)$	30	W
T_j	150	℃
T_{stg}	-55~150	℃

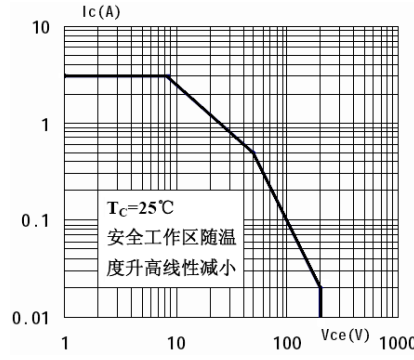


电性能参数/Electrical characteristics(Tc=25℃)

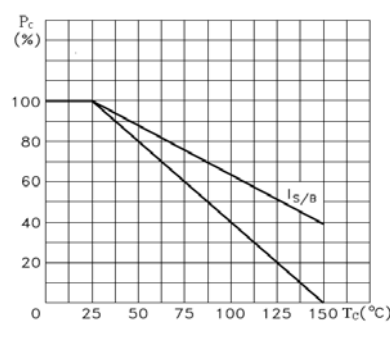
参数符号 Symbol	测试条件 Test Condition		数值 Rating			单位 Unit
			最小值 Min	典型值 Typ	最大值 Max	
V_{CBO}	$I_C=1mA$	$I_E=0$	400			V
V_{CEO}	$I_C=10mA$	$I_B=0$	200			V
V_{EBO}	$I_E=1mA$	$I_C=0$	9.0			V
I_{CBO}	$V_{CB}=400V$	$I_E=0$			0.1	mA
I_{CEO}	$V_{CE}=200V$	$I_B=0$			0.1	mA
I_{EBO}	$V_{EB}=9.0V$	$I_C=0$			0.1	mA
$h_{FE(1)}$	$V_{CE}=5.0V$	$I_C=0.2A$	10		40	
$h_{FE(2)}$	$V_{CE}=5.0V$	$I_C=0.001A$	7.0			
$h_{FE(3)}$	$V_{CE}=5.0V$	$I_C=3.0A$	5.0			
$V_{CE(sat)(1)}$	$I_C=2.5A$	$I_B=0.5A$			1.5	V
$V_{CE(sat)(2)}$	$I_C=1.0A$	$I_B=0.2A$			0.5	V
$V_{BE(sat)}$	$I_C=2.5A$	$I_B=0.5A$			1.5	V
t_s	$V_{CE}=5V$ $I_C=0.25A$ (UI9600)		1.5		3.5	μs
t_F					0.6	μs
f_T	$V_{CE}=10V$ $I_C=0.2A$ $f=1MHz$		5			MHz

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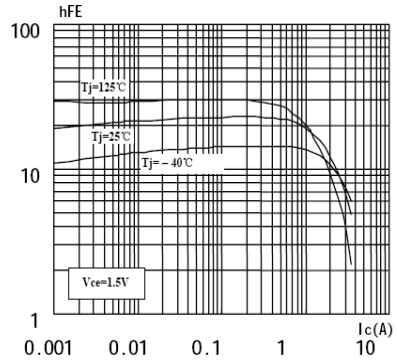
SOA (DC)



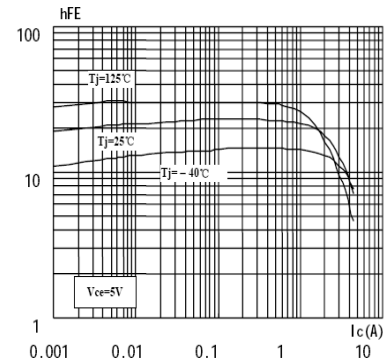
P_c-T_c



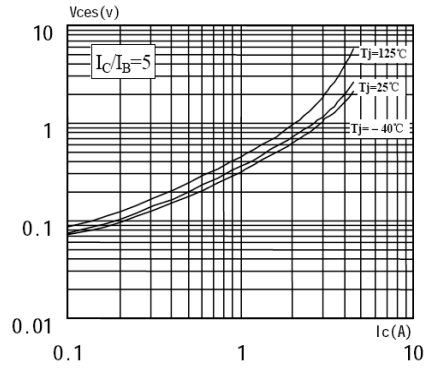
$h_{FE}-I_c$



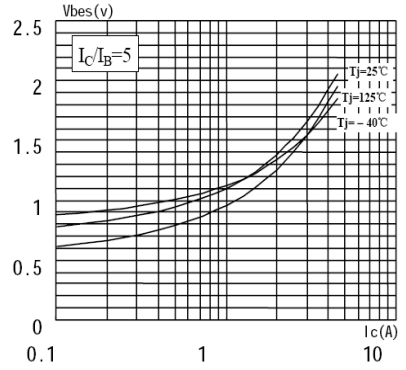
$h_{FE}-I_c$



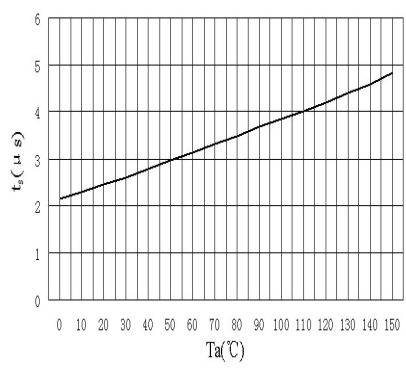
$V_{ces}-I_c$



$V_{bes}-I_c$



t_s-T_a



$h_{FE}-T_a$

