



3FT8U

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	8A
V_{DRM}	800V
I_{GT}	10mA

用途

- 交流开关
- 相位控制

APPLICATIONS

- AC switching
- Phase control

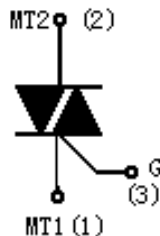
产品特性

- 玻璃钝化芯片，高可靠性和一致性
- 低通态电流和高浪涌电流能力
- 环保 RoHS 产品

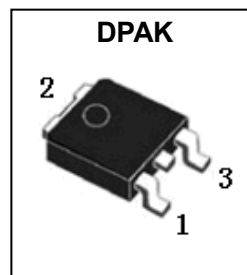
FEATURES

- Glass-passivated mesa chip for high reliability and uniform
- Low on-state voltage and High I_{TSM}
- RoHS products

封装 Package



序号 Pin	引线名称 Description	
1	主电极 1	MT1
2	主电极 2	MT2
3	门极	G



订货信息 ORDER MESSAGES

订货型号 Order codes				印 记 Marking	封 装 Package	器件重量 Device Weight
有卤-编带	无卤-编带	有卤-袋装	无卤-袋装	3FT8U	DPAK	0.31g (typ)
Halogen-Reel	Halogen-Free- Reel	Halogen-Bag	Halogen-Free-Bag			
3FT8U-R-A	3FT8U-R-AR	3FT8U-R-C	3FT8U-R-CR			



绝对最大额定值 ABSOLUTE RATINGS ($T_c=25^{\circ}\text{C}$)

项 目 Parameter	符 号 Symbol	试 验 条 件 Condition	数 值 Value	单 位 Unit
重复峰值断态电压 Repetitive peak off-state voltage	V_{DRM}		± 800	V
通态方均根电流 On-state RMS current	$I_{\text{T(RMS)}}$	full sine wave	8	A
非重复浪涌峰值通态电流 Non- repetitive surge peak on-state current	I_{TSM}	full sine wave , $t=20\text{ms}$	65	A
		full sine wave , $t=16.7\text{ms}$	71	A
	I^2t	$t=10\text{ms}$	21	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	dI/dt	$I_{\text{TM}}=12\text{A}$, $I_{\text{G}}=0.2\text{A}$, $dI_{\text{G}}/dt=0.2\text{A}/\mu\text{s}$	50	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	I_{GM}		2	A
峰值门极电压 Peak gate voltage	V_{GM}		5	V
峰值门极功率 Peak gate power	P_{GM}		5	W
平均门极功率 Average gate power	$P_{\text{G(AV)}}$	over any 20ms period	0.5	W
存储温度 Storage temperature	T_{stg}		$-40\sim 150$	$^{\circ}\text{C}$
操作结温 Operation junction temperature	T_{VJ}		125	$^{\circ}\text{C}$

电特性 ELECTRICAL CHARACTERISTIC ($T_c=25^\circ\text{C}$)

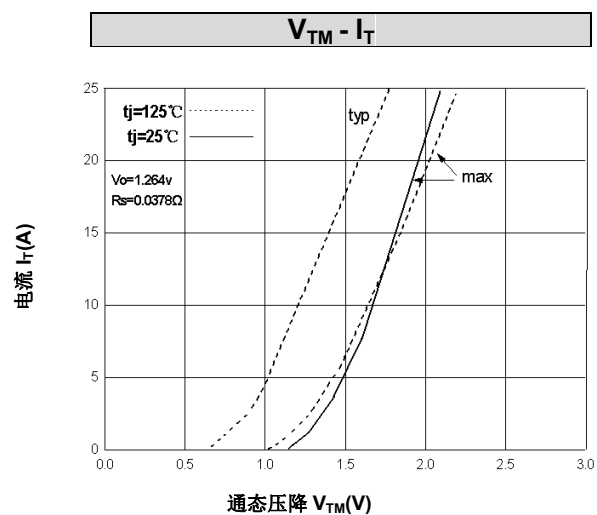
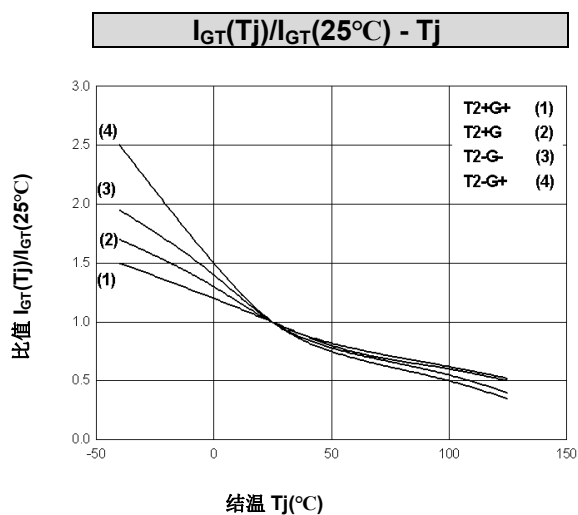
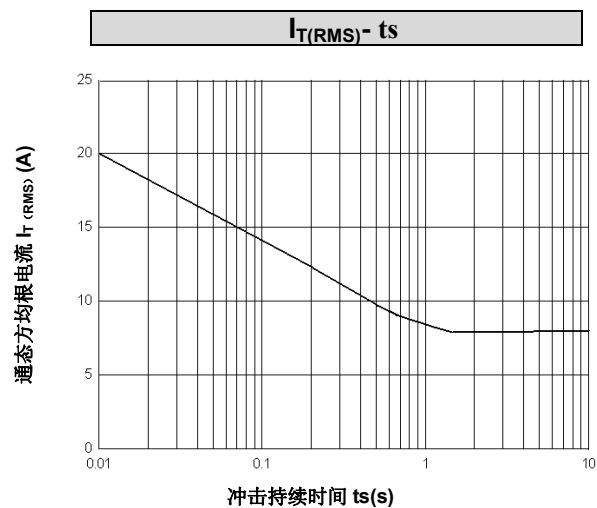
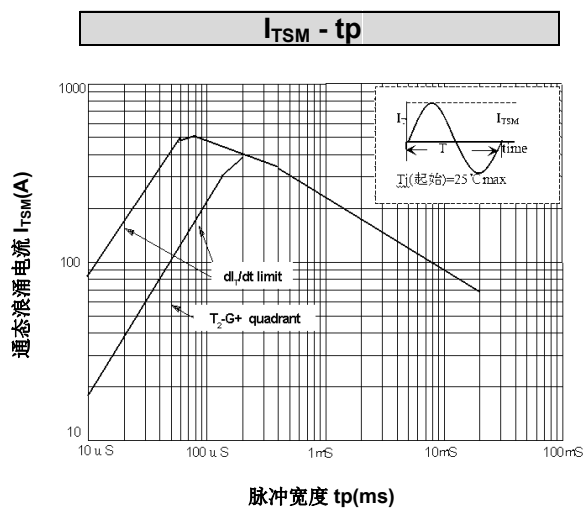
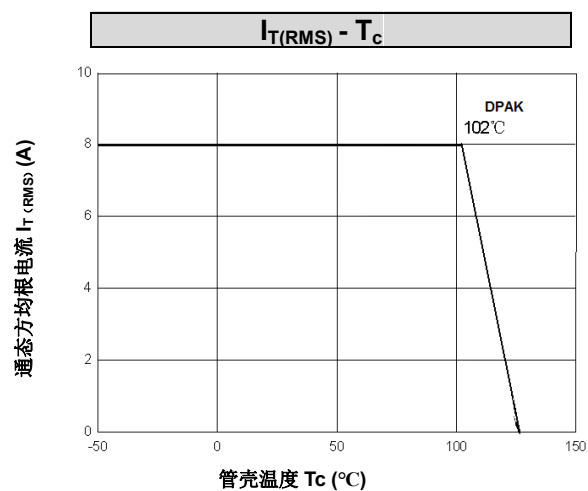
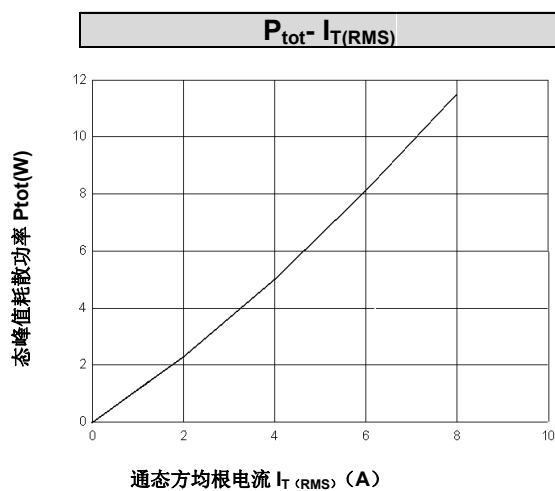
项 目 Parameter	符 号 Symbol	测 试 条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
峰值重复断态电流 Peak Repetitive Blocking Current	I_{DRM}	$V_{\text{DM}}=V_{\text{DRM}}, T_j=125^\circ\text{C},$ gate open	-	0.1	0.5	mA
峰值通态电压 Peak on-state voltage	V_{TM}	$I_{\text{TM}}=10\text{A}$	-	1.35	1.65	V
门极触发电压 Gate trigger voltage	V_{GT}	$V_{\text{DM}}=12\text{V}, R_L=100\Omega$	-	-	1.5	V
门极开通时间Gate controlled turn-on time	tgt	$I_{\text{TM}}=12\text{A}, V_{\text{DM}}=V_{\text{DRM(MAX)}},$ $I_G=0.1\text{A}, dI_G/dt=5\text{A}/\mu\text{S}$	-	2	-	μs
门极触发电流 Gate trigger current	I_{GT}	$V_{\text{DM}}=12\text{V},$ $R_L=100\Omega$	-	-	10	MT1(-),MT2(+),G(+) mA
						MT1(-),MT2(+),G(-) mA
						MT1(+),MT2(-),G(-) mA
						MT1(+),MT2(-),G(+) mA
维持电流 Holding current	I_{H}	$V_{\text{DM}}=12\text{V}, I_{\text{GT}}=0.1\text{A}$	-	-	20	mA
擎住电流 Latching current	I_{L}	$V_{\text{DM}}=12\text{V}, I_{\text{GT}}=0.1\text{A}$	-	-	35	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	$V_{\text{DM}}=67\% V_{\text{DRM(MAX)}},$ $T_j=125^\circ\text{C},$ gate open	-	50	-	V/ μs

热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	$R_{\text{th(j-c)}}$	full cycle (DPAK)			2.0	$^\circ\text{C}/\text{W}$



特征曲线 ELECTRICAL CHARACTERISTICS (curves)

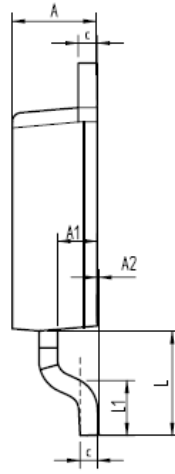
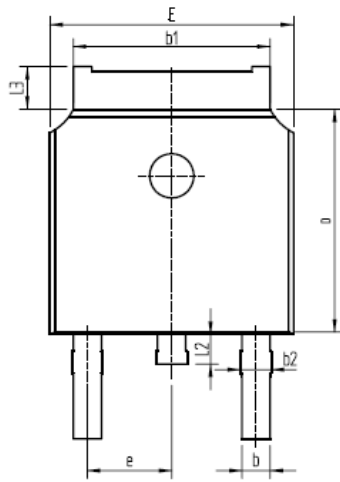




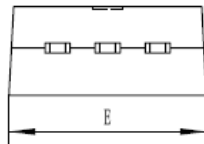
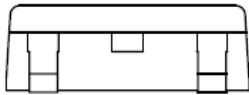
外形尺寸 PACKAGE MECHANICAL DATA

DPAK

单位 Unit : mm



SYMBOL	mm	
	MIN	MAX
A	2.16	2.41
A1	0.97	1.17
A2	0.00	0.15
b	0.63	0.93
b1	5.13	5.53
b2	0.66	0.96
c	0.40	0.60
D	5.80	6.40
E	6.30	6.90
e	2.286BSC	
L	2.50	3.30
L1	1.20	1.80
L2	0.60	1.00
L3	0.85	1.30





注意事项

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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知。

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this. specification sheet and is subject to change without prior notice.

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