

RJH60F0DPK

Silicon N Channel IGBT
High Speed Power Switching

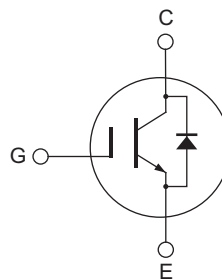
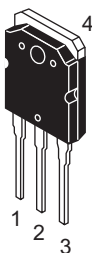
REJ03G1834-0100
Rev.1.00
Oct 13, 2009

Features

- High speed switching
- Low on-state voltage
- Fast recovery diode

Outline

RENESAS Package code: PRSS0004ZE-A
(Package name: TO-3P)



1. Gate
2. Collector
3. Emitter
4. Collector (Flange)

Absolute Maximum Ratings

(T_c = 25°C)

Item	Symbol	Ratings	Unit	
Collector to emitter voltage	V _{CES}	600	V	
Gate to emitter voltage	V _{GES}	±30	V	
Collector current	I _c ^{Note1}	T _c = 25 °C	50	A
		T _c = 100°C	25	A
Collector peak current	i _{c(peak)} ^{Note1}	100	A	
Collector to emitter diode forward peak current	i _{DF(peak)} ^{Note2}	100	A	
Collector dissipation	P _C ^{Note3}	201.6	W	
Channel temperature	T _j	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	

- Notes: 1. Pulse width limited by safe operating area.
 2. PW ≤ 5 μs, duty cycle ≤ 1%
 3. Value at T_c = 25°C

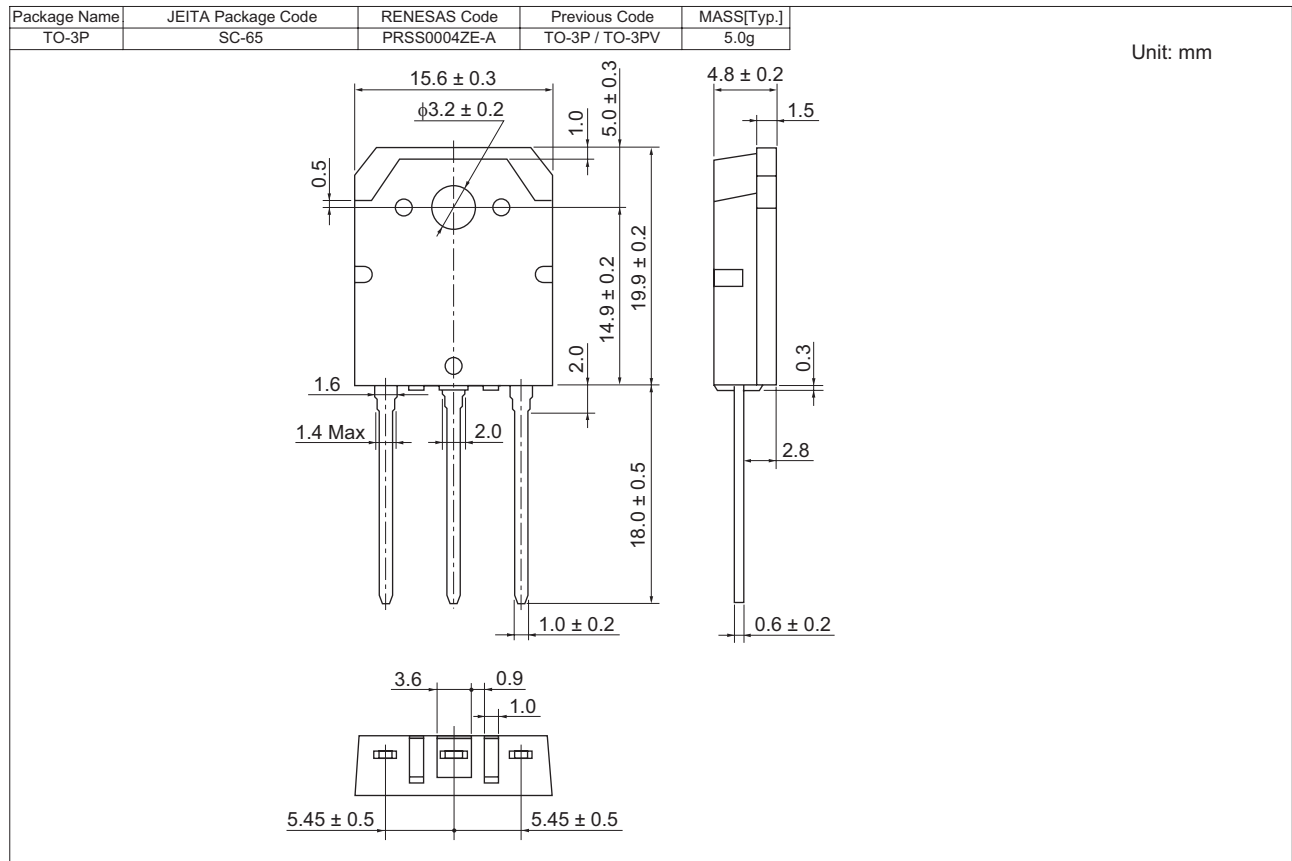
Electrical Characteristics

(T_j = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Zero gate voltage collector current	I _{CES}	—	—	100	μA	V _{CE} = 600V, V _{GE} = 0
Gate to emitter leak current	I _{GES}	—	—	±1	μA	V _{GE} = ±30 V, V _{CE} = 0
Gate to emitter cutoff voltage	V _{GE(off)}	4	—	8	V	V _{CE} = 10V, I _C = 1 mA
Collector to emitter saturation voltage	V _{CE(sat)}	—	1.4	1.82	V	I _C = 25 A, V _{GE} = 15V ^{Note4}
		—	1.7	—	V	I _C = 50 A, V _{GE} = 15V ^{Note4}
Switching time	t _f	—	90	—	ns	I _C = 30 A, Resistive Load V _{CC} = 300 V V _{GE} = 15 V R _g = 5 Ω ^{Note4}
C-E diode forward voltage	V _{ECF1}	—	1.6	2.1	V	I _F = 20 A ^{Note4}
C-E diode forward voltage	V _{ECF2}	—	1.8	—	V	I _F = 40 A ^{Note4}
C-E diode reverse recovery time	t _{rr}	—	140	—	ns	I _F = 20 A di _F /dt = 100 A/μs

Notes: 4. Pulse test

Package Dimensions



Ordering Information

Part No.	Quantity	Shipping Container
RJH60F0DPK-00-T0	360 pcs	Box (Tube)

Notes:

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