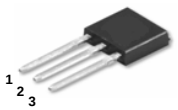
Green Package

PTU742G / PTD742G

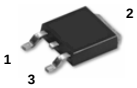
NPN Silicon Power Transistor
4 Amperes / 70 Watts

PTU742G
I-PAK(TO-251)



1. Base
2. Collector
3. Emitter

PTD742G
D-PAK(TO-252)



1. Base
2. Collector
3. Emitter

Switch Mode series NPN silicon Power Transistor

- High voltage, high speed power switching
- Suitable for switching regulator, inverters, motor controls

Absolute Maximum Ratings TC=25℃ unless otherwise noted

CHARACTERISTICS	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	950	V
Collector-Emitter Voltage (V_{EB}=0)	V_{CES}	950	V
Collector-Emitter Voltage (I_B=0)	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	12	V
Collector Current(DC)	I_C	4	A
Collector Current(Pulse)	I_{CP}	8	A
Collector Dissipation(Tc=25℃)	P_C	70	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~150	℃

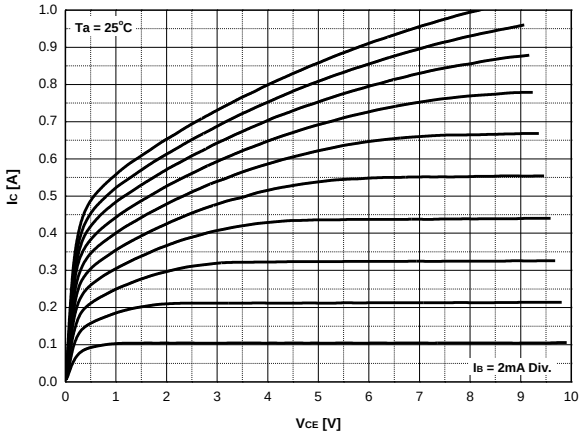
Electrical Characteristics TC=25℃ unless otherwise noted

CHARACTERISTICS	SYMBOL	Test Condition	Min	Typ.	Max	Unit
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=5mA, I_B=0	400	-	-	V
Emitter Cut-off Current	I_{EBO}	V_{EB}=9V,I_C=0	-	-	500	nA
*DC Current Gain	h_{FE1} h_{FE2}	V_{CE}=5V,I_C=10mA V_{CE}=3V,I_C=0.8A	10 16	- -	- 40	- -
*Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C=3.0A,I_B=0.6A I_C=3.5A,I_B=1.0A	- -	- -	1.0 1.5	V V
*Base-Emitter Saturation Voltage	V_{BE}(sat)	I_C=3.5A,I_B=1.0A	-	-	1.5	V
Current Gain Bandwidth Product	f_T	V_{CE}=10V,I_C=0.5A	4	-	-	MHz
Storage Time	t_{stg}	Vcc=5V, Ic=0.5A	2	-	6	μS
Fall Time	t_f		-	-	0.9	μS

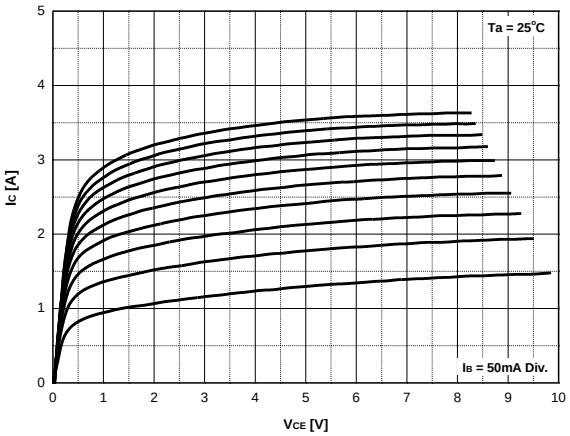
* Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%

Typical Characteristics

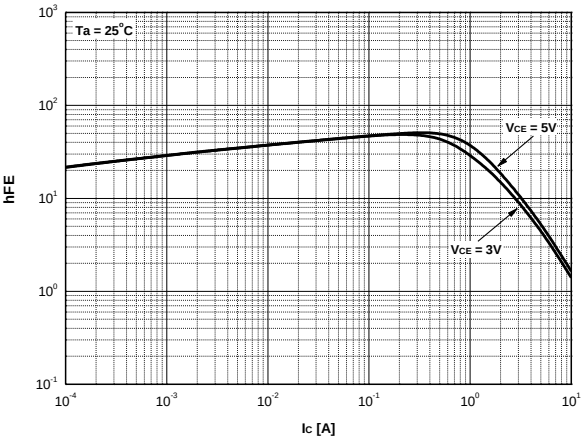
Static Characteristics



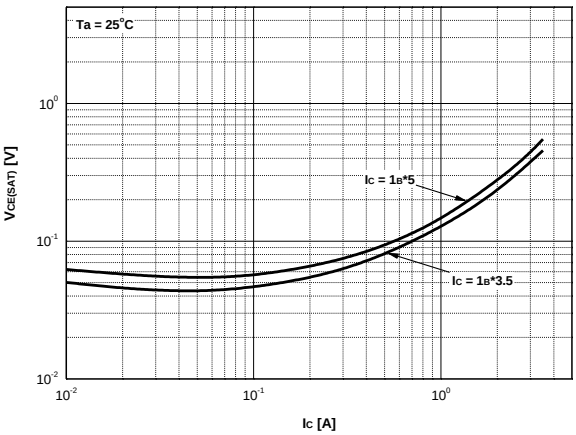
Static Characteristics



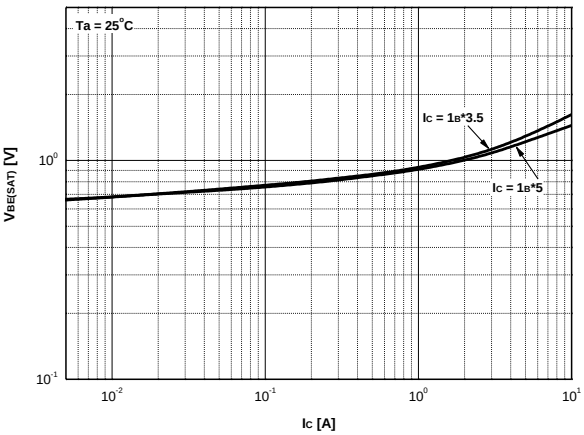
DC Current Gain



Collector-Emitter Saturation Voltage



Base-Emitter Saturation Voltage



Power Derating