

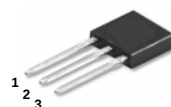
PTU742G / PTD742G

NPN Silicon Power Transistor
4 Amperes / 70 Watts

Switch Mode series NPN silicon Power Transistor

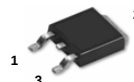
- High voltage, high speed power switching
- Suitable for switching regulator, inverters, motor controls

PTU742G
I-PAK(TO-251)



1. Base
2. Collector
3. Emitter

PTD742G
D-PAK(TO-252)



1. Base
2. Collector
3. Emitter

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($T_C=25^\circ\text{C}$)	P_C	70	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~150	℃

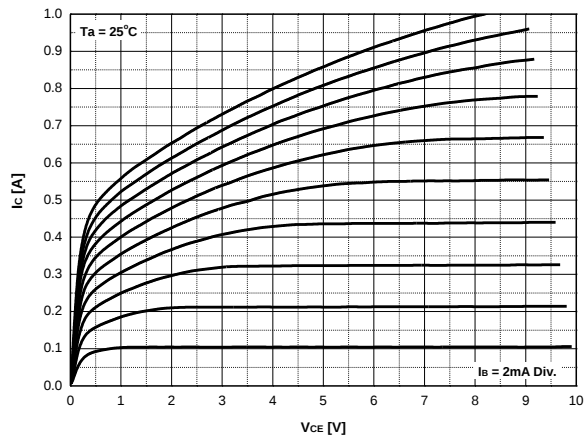
Electrical Characteristics TC=25℃ unless otherwise noted

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

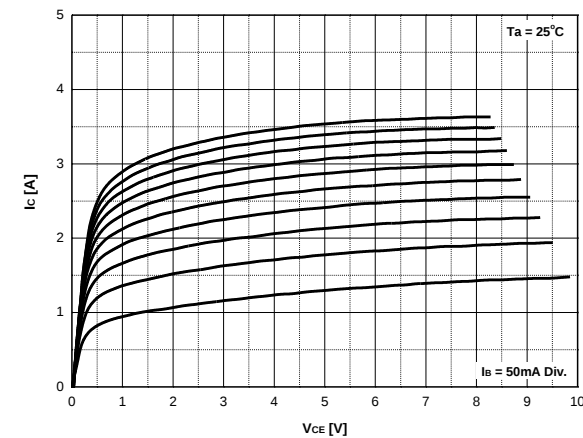
* Pulse Test: Pulse Width≤300μs, Duty Cycles≤2%

Typical Characteristics

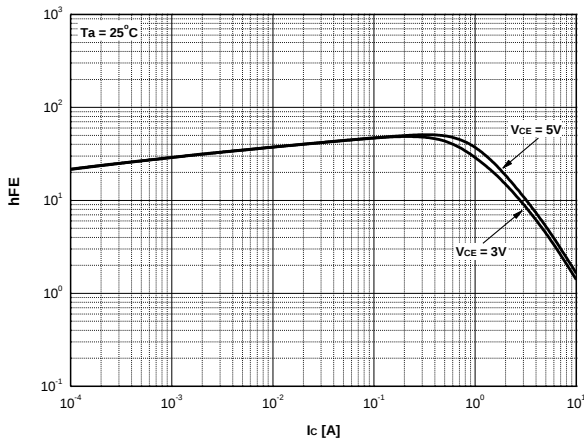
Static Characteristics



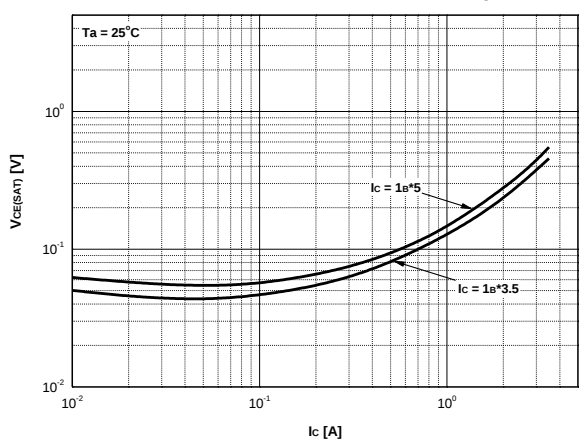
Static Characteristics



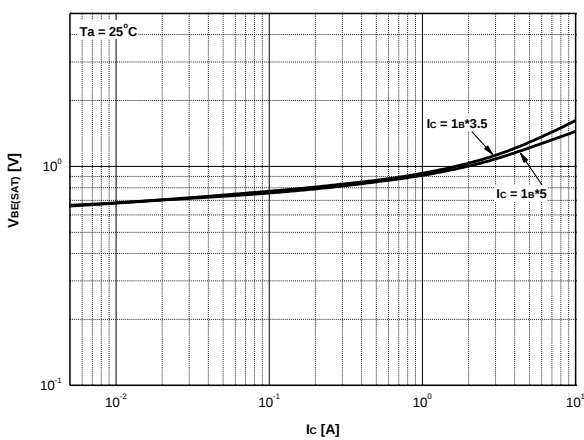
DC Current Gain



Collector-Emitter Saturation Voltage



Base-Emitter Saturation Voltage



Power Derating

