

IGBT—Insulated Gate Bipolar Transistor

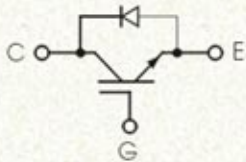
Features

- All electric contacts by pressure structure and airtight package
- Anti-parallel fast recovery diode in this package
- Enhancement mode IGBT

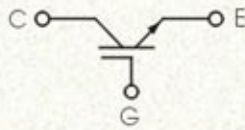
Applications

- High power switching
- Motor control

Equivalent circuit



CGF800/1700P_{cS}



CGD1100/1700P_{cS}



Parameters of CGF800/1700PCS

Type	V_{CES}	V_{GES}	I_C DC	I_{CP} 1ms	I_{GES} @ $V_{GE}=\pm 20V$	I_{CES} @ $V_{CE}=1700V$ $V_{GE}=0$	$V_{CE(sat)}$ @ $I_C=800A$ $V_{GE}=15V$	$V_{GE(th)}$ @ $V_{CE}=10V$ $I_C=0.5A$	t_{on}	t_{off}	P_C	$R_{th(j-c)T}$	Outline
	V	V	A	A	μA	mA	V	V	@Inductive load $V_{CC}=1000V, I_C=800A,$ $V_{GE}=\pm 15V, R_G=5\Omega$		W	$^{\circ}C/W$	
									μs	μs			
CGF800/ 1700PcS	1700	± 20	800	1600	± 5	≤ 250	≤ 6	≤ 10	≤ 2.5	≤ 3	4440	0.020	PcS

Type	V_F @ $I_F = 800A,$ $V_{GE} = 0$ V	t_{rr} @ $I_F = 800A, V_{GE} = 0,$ $di/dt = 2000A/\mu s$ μs	$R_{th(j-c)D}$ $^{\circ}C/W$
CGF800/1700P _{cS} (diode)	≤ 3.5	≤ 1	0.050

Parameters of CGD1100/1700PCS

Type	V_{CES}	V_{GES}	I_C DC	I_{CP} 1ms	I_{GES} @ $V_{GE} = \pm 20V$	I_{CES} @ $V_{CE} = 1700V$ $V_{GE} = 0$	$V_{CE(sat)}$ @ $I_C = 1100A$ $V_{GE} = 15V$	$V_{GE(th)}$ @ $V_{CE} = 10V$ $I_C = 0.5A$	t_{on}	t_{off}	P_C	$R_{th(j-c)}$	Outline
	V	V	A	A	μA	mA	V	V	@Inductive load $V_{CC} = 1000V, I_C = 1100A,$ $V_{GE} = \pm 15V, R_G = 5 \Omega$		W	$^{\circ}C/W$	
									μs	μs			
CGD1100 /1700PcS	1700	± 20	1100	2200	± 5	≤ 250	≤ 6	≤ 10	≤ 2.5	≤ 3	6216	0.020	PcS