

Insulated Gate Bipolar Transistor

Standard & Fast Processes

Part Number	BV _{CES} Collector to Emitter Breakdown Voltage (V)	V _{GE(th)} Gate to Emitter Threshold Voltage		V _{CE(on)} Collector to Emitter Saturation Voltage (1)		I _C @ Collector Current @ T _C = 25°C (A)	E _{ts} typ Total Switching Loss @ T _J = 150°C V _{CC} = 480V (mJ) (A)		P _D Max. Power Dissip. (W)	Case Outline Number (2)	Notes	Case Style
		Min (V)	Max (V)	Typ (V)	Max (V)							
IRGBC20	600	2.5	5.0	2.7	3.4	13	0.9	6.5	60	IG1	(2) (4)	TO-220AB
IRGBC26				1.8	2.4	19	6.2	10	60			
IRGBC30				2.6	3.2	23	1.7	12	100			
IRGBC36				1.7	2.2	34	11.9	18	100			
IRGBC40				2.4	3.0	40	2.7	20	160			
IRGBC46				1.6	2.0	50	20.8	31	160			
IRGPC40				2.4	3.0	40	2.7	20	160	IG2	(2)	TO-247AC (TO-3P)
IRGPC46				1.6	2.0	60	21.4	31	160			
IRGPC50				2.2	2.7	55	4.1	27	200			
IRGPC56				1.4	1.8	70	28.6	41	200			



IGBT Die

Electrical Probe Specifications for IGBT Die

IGBT Die Size	Part Number	Max. Rated V _{CE} (V)	V _{GE(th)} @ I _C = 250 μA V _{CE} = 5V Min. (V)	V _{GE(th)} @ I _C = 250 μA V _{CE} = 5V Max. (V)	V _{CE(on)} V _{GE} = 15V Max. (1) (V)	@ I _C = (A)	I _{CES} @ Rated V _{CE} V _{GE} = 0 Max. (μA)	I _{GES} @ V _{GE} = ±20V Max. (nA)	Closest Packaged Device	Die Figure No. (3)
2	IRGCC20 IRGCC26	600	2.5	5.0	4.0	6.5	250	500	IRGBC20 IRGBC26	D49
					2.5	10				
3	IRGCC30 IRGCC36				3.8	12				
					2.3	18				
4	IRGCC40 IRGCC46				3.6	20				
					1.8	20				
5	IRGCC50 IRGCC56	3.1	20							
		1.6	20							

(1) PULSE TEST, 80 μs DUTY FACTOR <0.1%

(2) FOR CASE OUTLINE DRAWING SEE PAGE 144.

(3) FOR DIE OUTLINE DRAWING SEE PAGE 144.