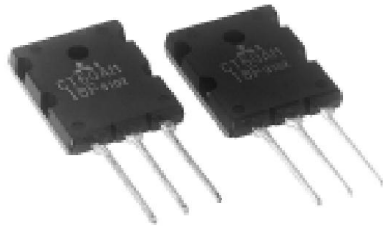


MITSUBISHI Nch IGBT  
**CT60AM-18F**

INSULATED GATE BIPOLAR TRANSISTOR

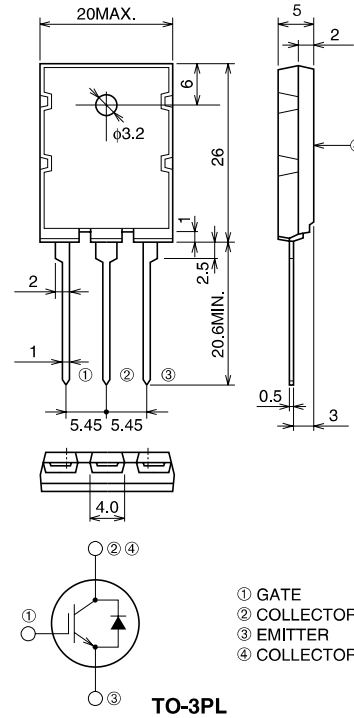
**CT60AM-18F**



- VCES ..... 900V
- IC ..... 60A
- Integrated Fast-recovery diode
- Small tail loss
- Low VCE(sat)

**OUTLINE DRAWING**

Dimensions in mm



**APPLICATION**

Microwave oven, Electromagnetic cooking devices, Rice-cookers

**MAXIMUM RATINGS** (T<sub>c</sub> = 25°C)

Symbol	Parameter	Conditions	Ratings	Unit
V <sub>CE</sub> S	Collector-Emitter Voltage	V <sub>GE</sub> = 0V	900	V
V <sub>GE</sub> S	Gate-Emitter Voltage		±25	V
V <sub>GEM</sub>	Peak Gate-Emitter Voltage		±30	V
I <sub>C</sub>	Collector Current		60	A
I <sub>CM</sub>	Collector Current (Pulse)		120	A
I <sub>E</sub>	Emitter Current		40	A
P <sub>C</sub>	Maximum Power Dissipation		180	W
T <sub>j</sub>	Junction Temperature		-40 ~ +150	°C
T <sub>stg</sub>	Storage Temperature		-40 ~ +150	°C

**INSULATED GATE BIPOLAR TRANSISTOR**

**ELECTRICAL CHARACTERISTICS** (Tch = 25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
ICES	Collector-emitter leakage current	VCE = 900V, VGE = 0V	—	—	1.0	mA
IGES	Gate-emitter leakage current	VGE = ±20V, VCE = 0V	—	—	0.5	μA
VGE(th)	Gate-emitter threshold voltage	VCE = 10V, IC = 6mA	2.0	4.0	6.0	V
VCE(sat)	Collector-emitter saturation voltage	IC = 60A, VGE = 15V	—	2.1	2.7	V
Cies	Input capacitance	VCE = 25V, VGE = 0V, f = 1MHz	—	4400	—	pF
Coes	Output capacitance		—	115	—	pF
Cres	Reverse transfer capacitance		—	75	—	pF
td(on)	Turn-on delay time		VCC = 300V, IC = 60A, VGE = 15V, RG = 10Ω	—	0.05	—
tr	Turn-on rise time	—		0.1	—	μs
td(off)	Turn-off delay time	—		0.2	—	μs
tr	Turn-off fall time	—		0.3	—	μs
Etail	Tail loss	ICP = 60A, Tj = 125°C, dv/dt = 200V/μs	—	0.6	1.0	mJ/pls
Itail	Tail current		—	6.0	12	A
VEC	Emitter-collector voltage	IE = 60A, VGE = 0V	—	2.2	3.0	V
trr	Diode reverse recovery time	IE = 60A, dis/dt = -20A/μs	—	0.5	2.0	μs
Rth(j-c)	Thermal resistance (IGBT)	Junction to case	—	—	0.69	°C/W
Rth(j-c)	Thermal resistance (Diode)	Junction to case	—	—	4.0	°C/W

**PERFORMANCE CURVES**

