

[Rated 200A/1200V, Dual-pack type]

- Low saturation voltage and high speed.
- Low turn-OFF switching loss.
- Low noise due to build-in free-wheeling diode. (Ultra Soft and Fast recovery Diode (USFD))
- High reliability structure.
- Isolated heat sink (terminals to base).

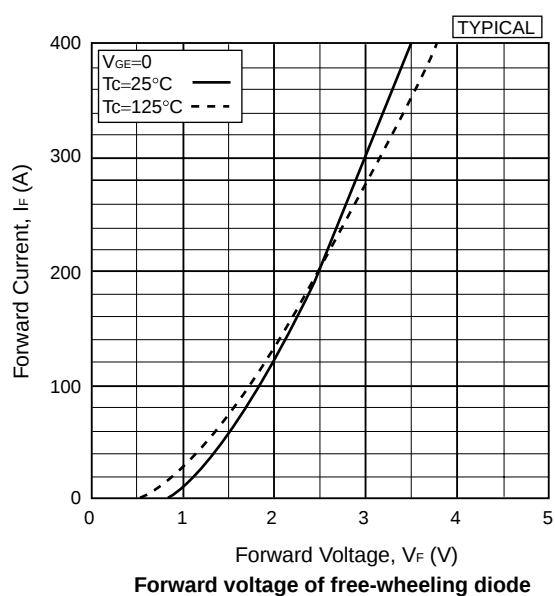
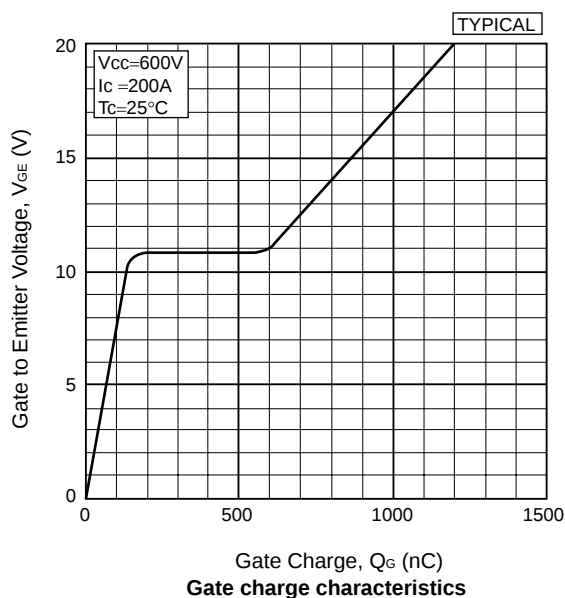
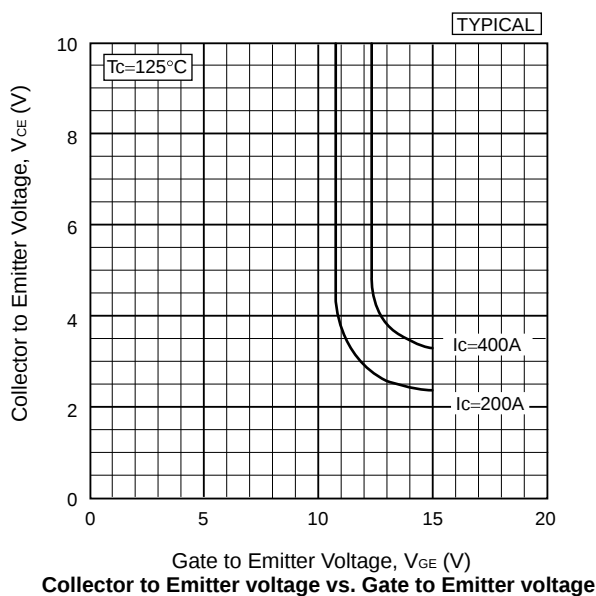
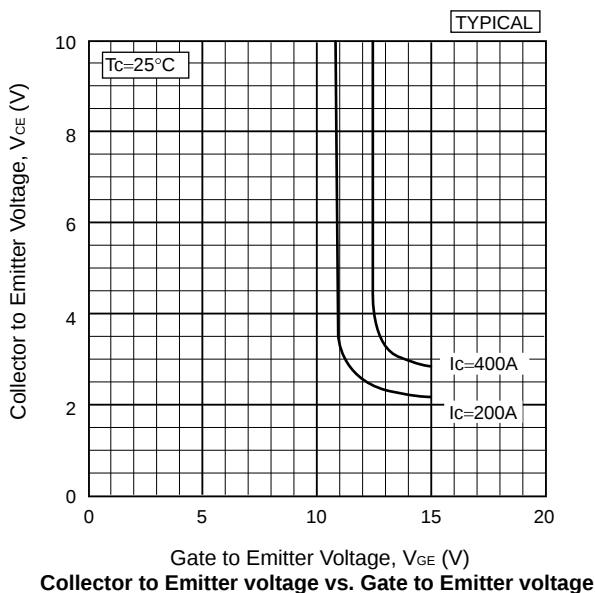
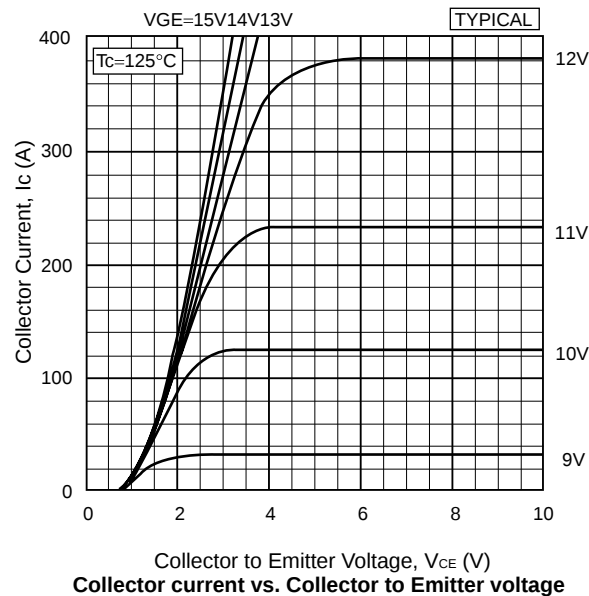
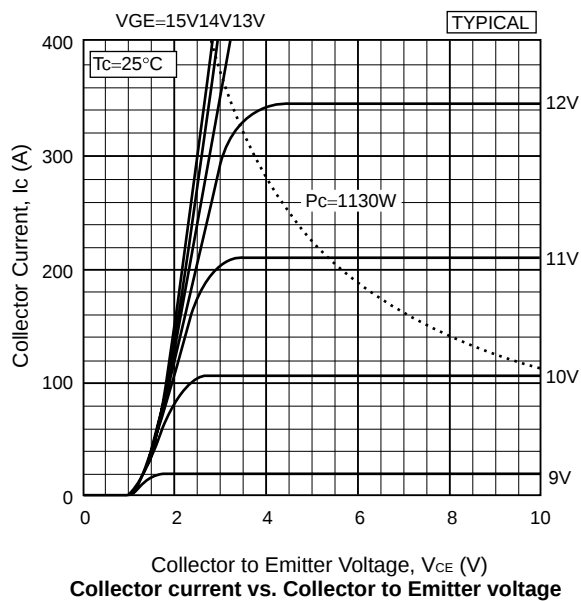
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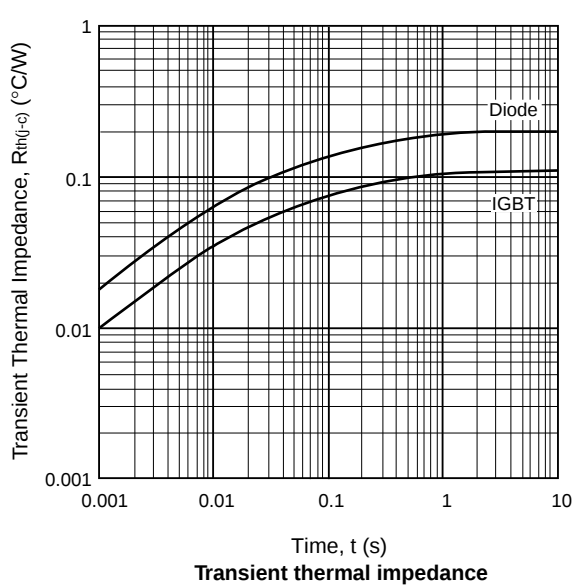
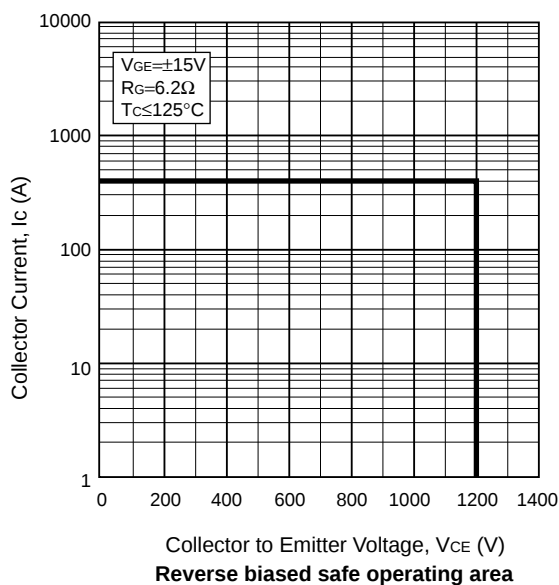
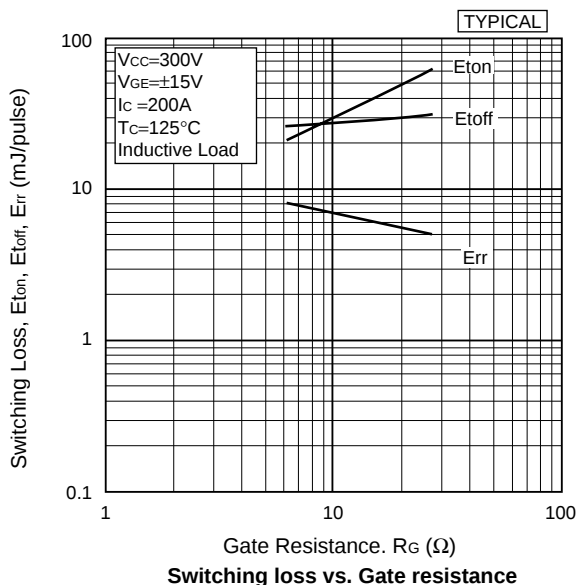
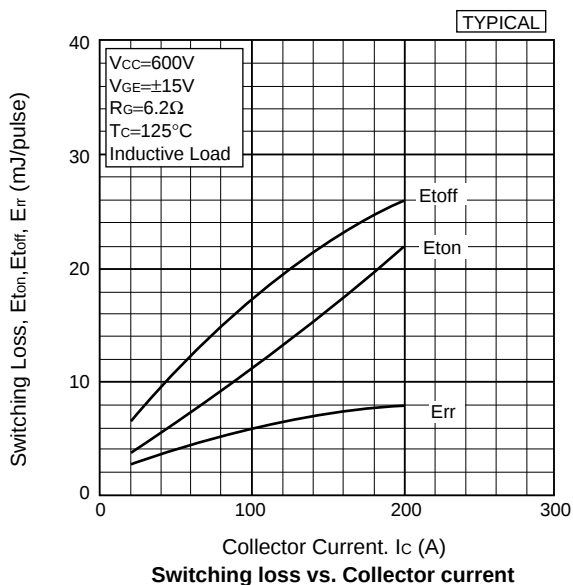
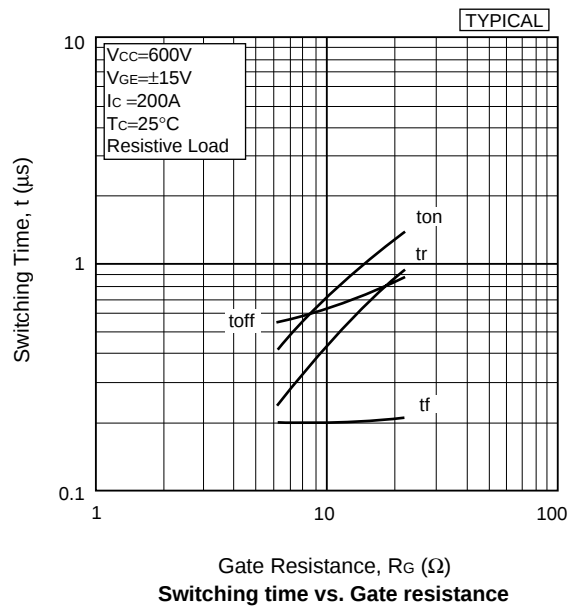
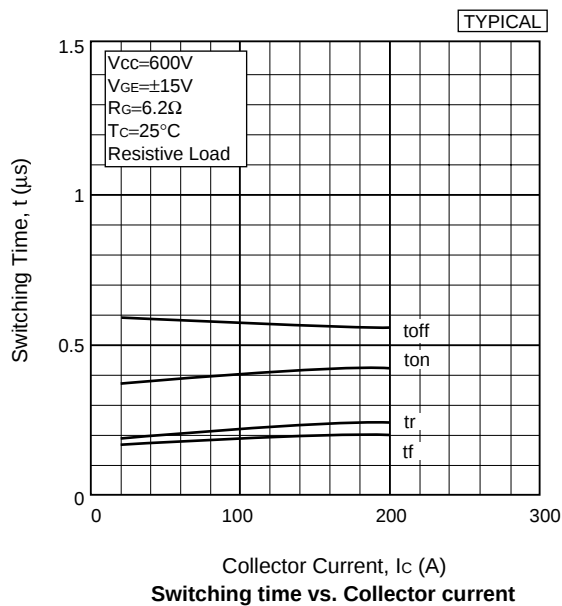
Item		Symbol	Unit	Value
Collector-Emitter Voltage		V_{CES}	V	1200
Gate-Emitter Voltage		V_{GES}	V	± 20
Collector Current	DC	I_C	A	200
	1ms	I_{CP}		400
Forward Current	DC	I_F	A	200 ^{*1}
	1ms	I_{FM}		400
Collector Power Dissipation		P_C	W	1130
Junction Temperature		T_J	°C	-40 ~ +150
Storage Temperature		T_{stg}	°C	-40 ~ +125
Isolation Voltage		V_{iso}	V_{RMS}	2500(AC 1 minute)
Screw Torque	Terminals	—	N·m (kgf·cm)	1.96(20) ^{*2}
	Mounting			1.96(20) ^{*3}

*2, *3 : Recommended value 1.67 N·m (17 kgf·cm)

Item		Symbol	Unit	Min.	Typ.	Max.	Test Conditions
Collector-Emitter Cut-Off Current		I_{CES}	mA	—	—	1.0	$V_{CE}=1200V, V_{GE}=0V$
Gate-Emitter Leakage Current		I_{GES}	nA	—	—	± 500	$V_{GE}=\pm 20V, V_{CE}=0V$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	V	—	2.2	2.8	$I_C=200A, V_{GE}=15V$
Gate-Emitter Threshold Voltage		$V_{GE(To)}$	V	—	—	10	$V_{CE}=5V, I_C=200mA$
Input Capacitance		C_{ies}	pF	—	19000	—	$V_{CE}=10V, V_{GE}=0V, f=1MHz$
Switching Times	Rise Time	t_r	μs	—	0.2	0.5	$V_{CC}=600V$ $R_L=3.0\Omega$ $R_G=6.2\Omega$ *4 $V_{GE}=\pm 15V$
	Turn-ON Time	t_{on}		—	0.35	0.8	
	Fall Time	t_f		—	0.2	0.35	
	Turn-Off Time	t_{off}		—	0.5	1.0	
Peak Forward Voltage Drop		V_{FM}	V	—	2.5	3.5	$I_F=200A, V_{GE}=0V$
Reverse Recovery Time		t_{rr}	μs	—	—	0.35	$I_F=200A, V_{GE}=-10V, di/dt=300A/\mu s$
Thermal Impedance	IGBT	$R_{th(j-c)}$	$^{\circ}C/W$	—	—	0.11	Junction to case
	FWD	$R_{th(f-c)}$				0.20	

Remark: The specification given herein, is subject to change without prior notice to improve product characteristics.





HITACHI POWER SEMICONDUCTORS

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