

MITSUBISHI ELECTRIC CORPORATION

APPLICATION NOTE	Prepared by <i>S. Uchida</i>	Rev	A	<i>S. Uchida</i>
	Approved by <i>M. Tabata 24-Oct.-'02</i>			<i>M. Yamamoto Nov. 1 '02</i>

CMH5099.doc

Subject Performance Curves of CM200DY-12NF

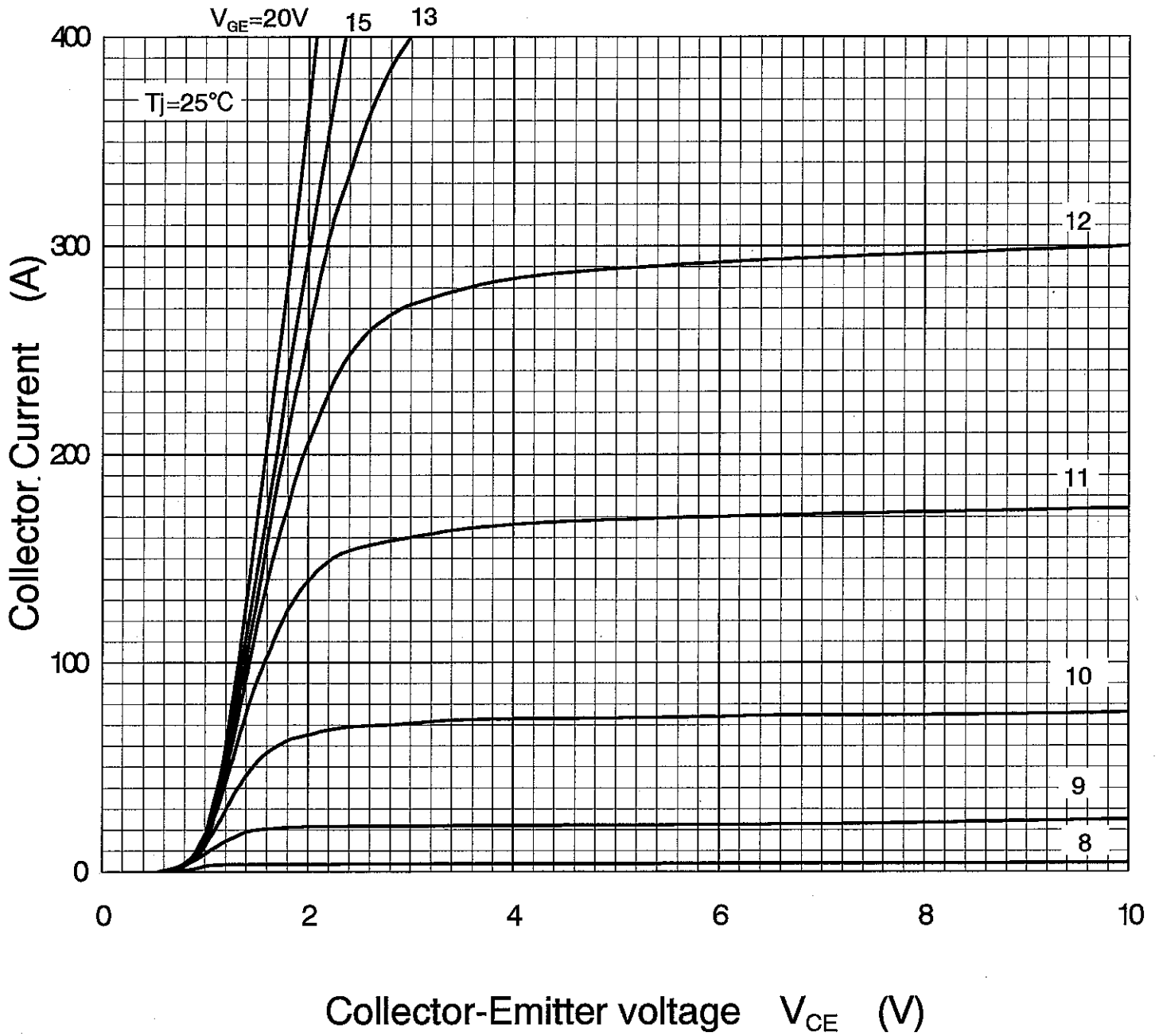
Contents

- Output Characteristics(typical)
- Collector-Emitter Saturation Voltage Characteristics(typical)
- Collector-Emitter Saturation Voltage Characteristics(typical)
- Free-Wheel Diode Forward Characteristics(typical)
- Capacitance-VCE Characteristics(typical)
- Half-Bridge Switching Characteristics(typical)
- Reverse Recovery Characteristics of Free-Wheel Diode(typical)
- Transient Thermal Impedance Characteristics(IGBT part&FWDi part)
- Gate Charge Characteristics(typical)

Don't measure these static characteristics yourself by curve tracer.
 Usually, curve tracer has too much wiring inductance and device will be damaged by over voltage from oscillation.

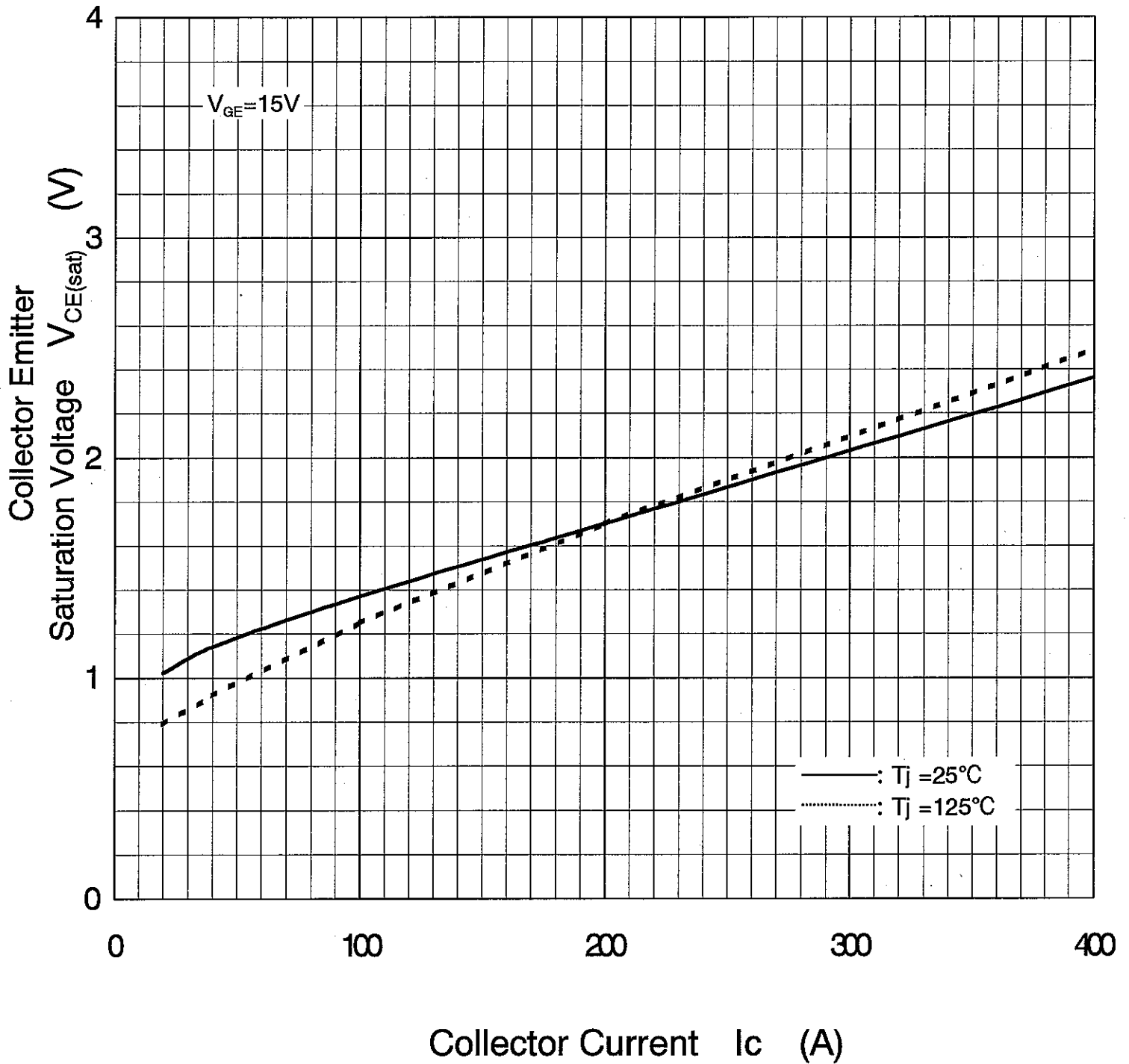
APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Output Characteristics (Typical) CM200DY-12NF



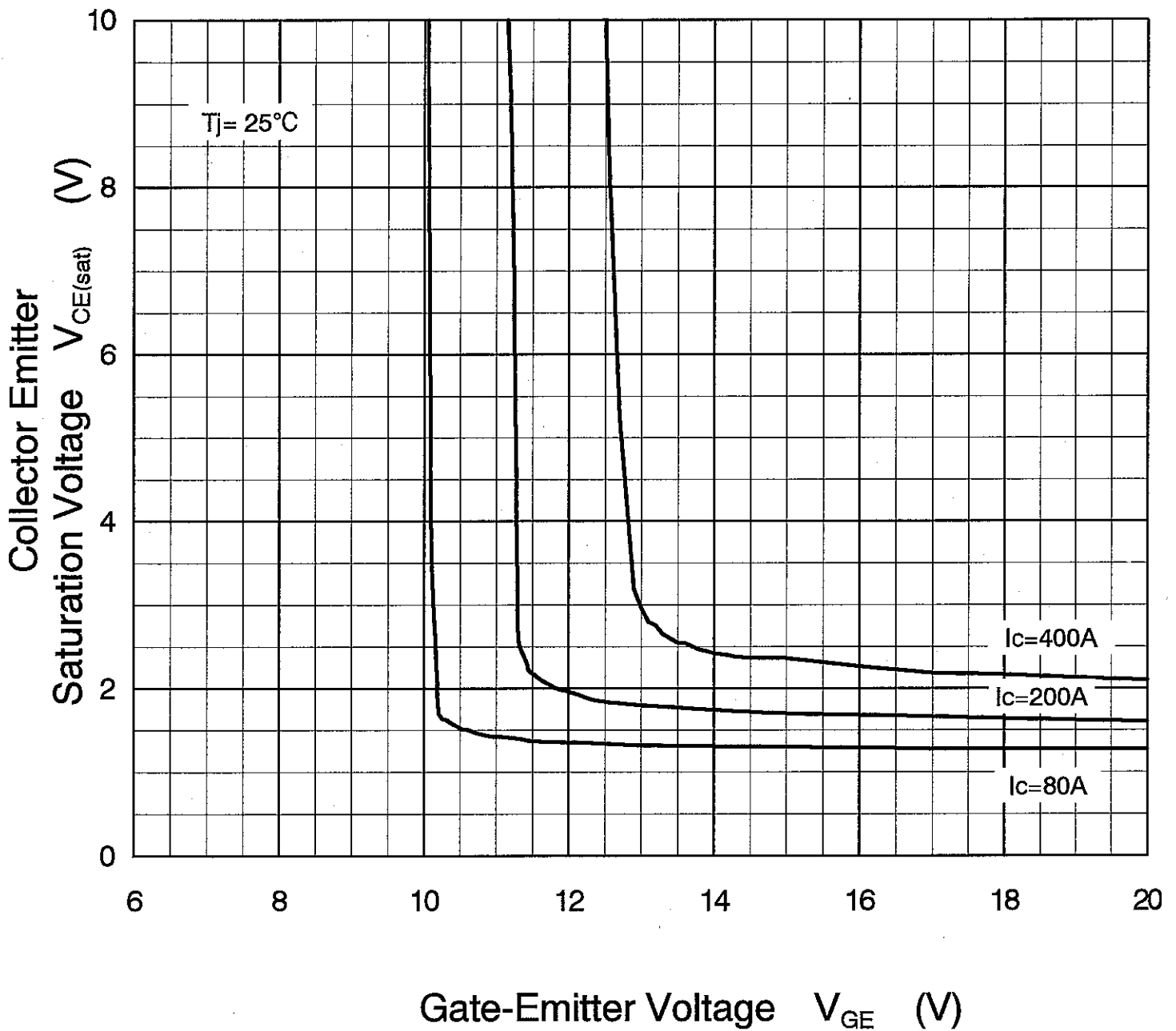
APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Collector-Emitter Saturation Voltage Characteristics (Typical) CM200DY-12NF



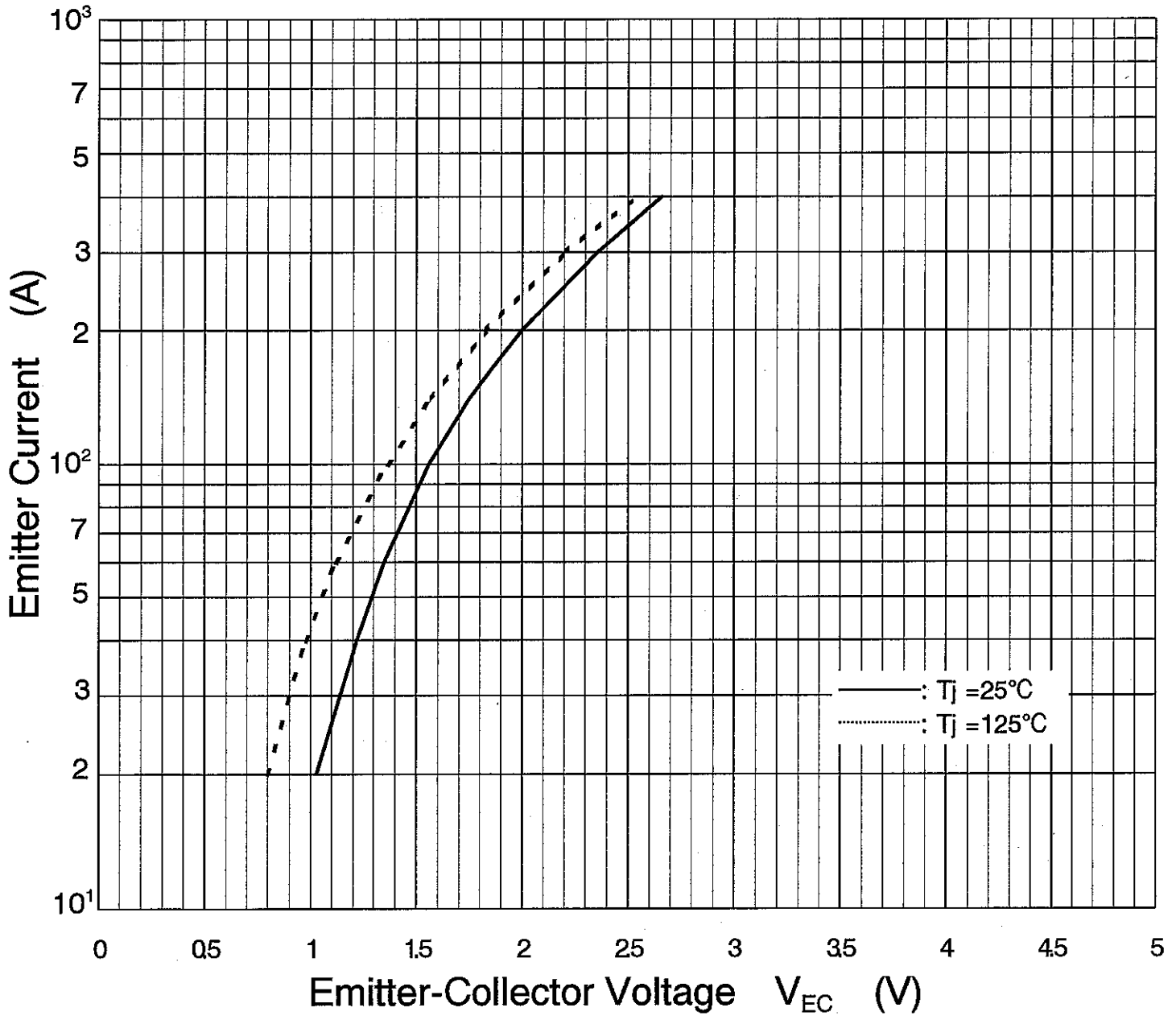
APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Collector-Emitter Saturation Voltage Characteristics (Typical) CM200DY-12NF



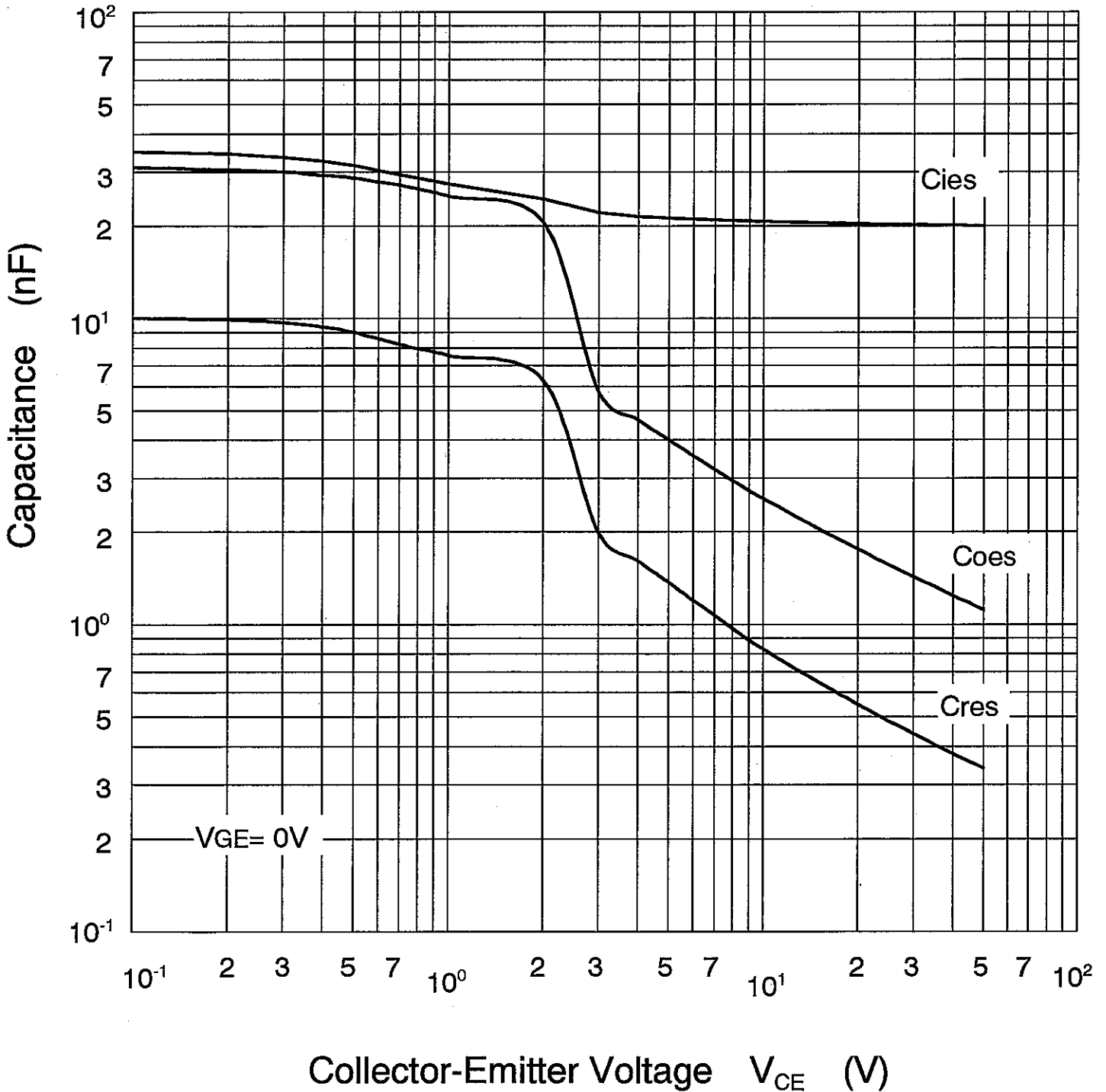
APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Free-Wheel Diode Forward Characteristics (typical) CM200DY-12NF



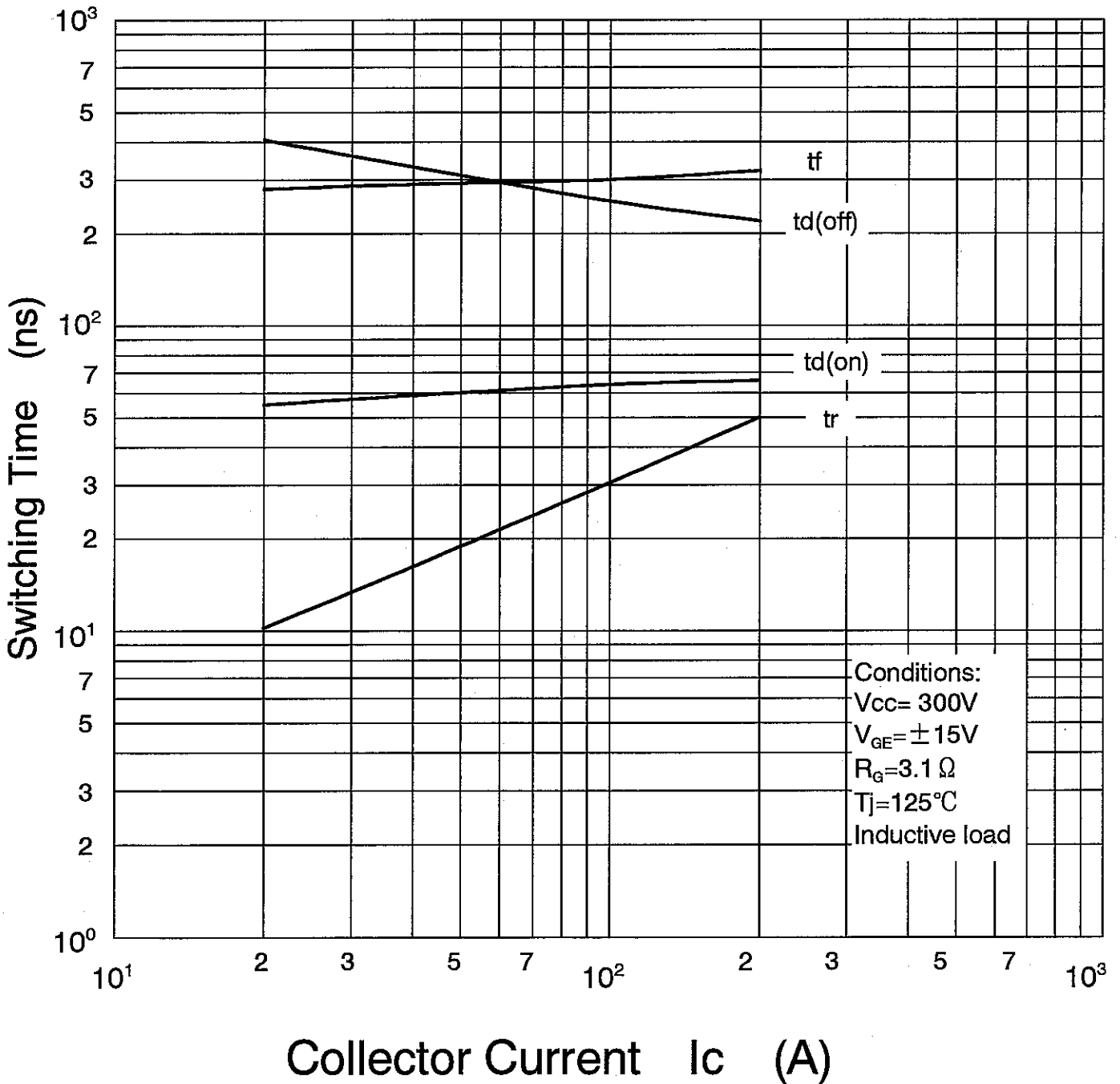
APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Capacitance- V_{CE} Characteristics (typical) CM200DY-12NF



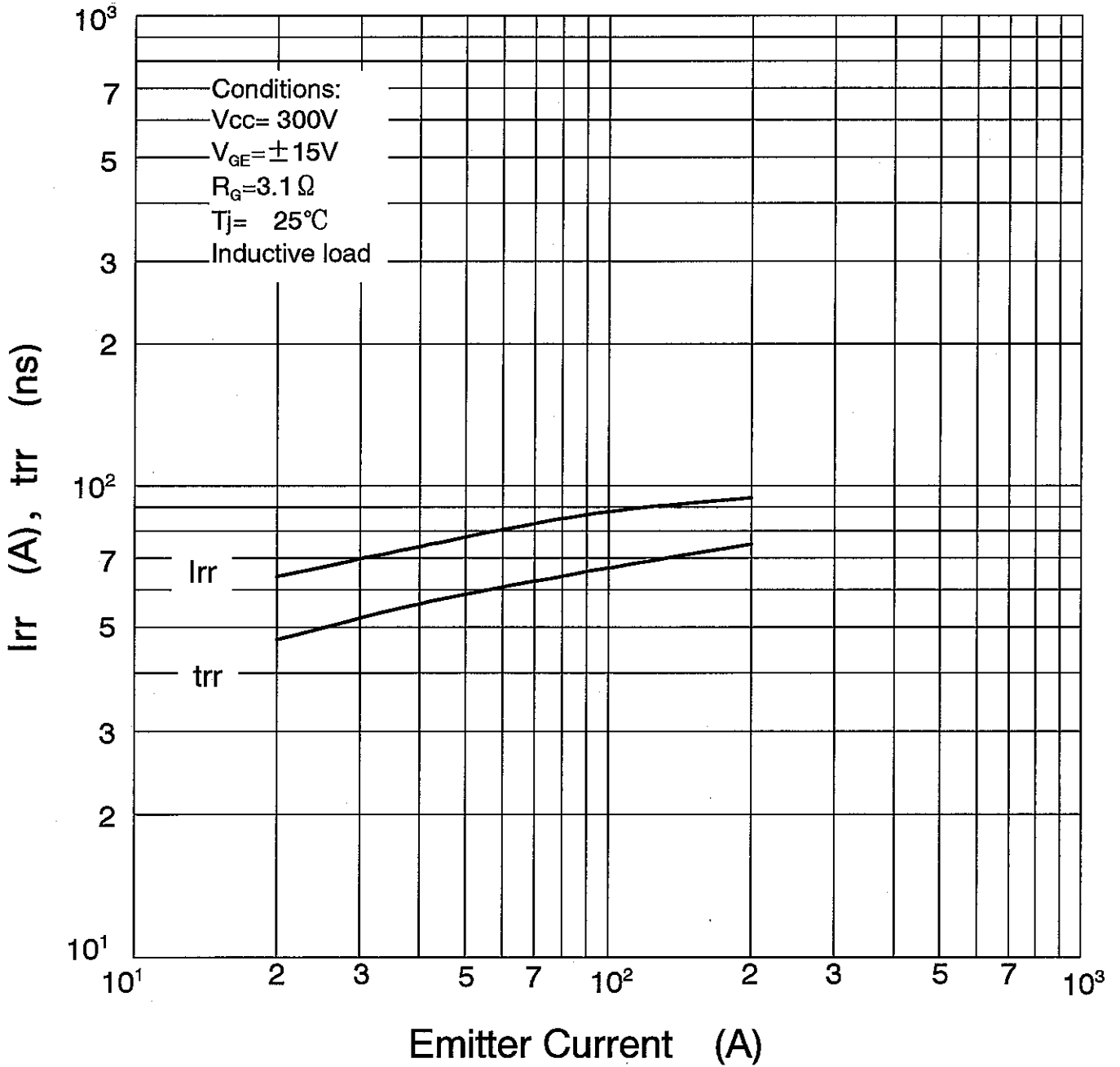
APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Half-Bridge Switching Characteristics (typical) CM200DY-12NF



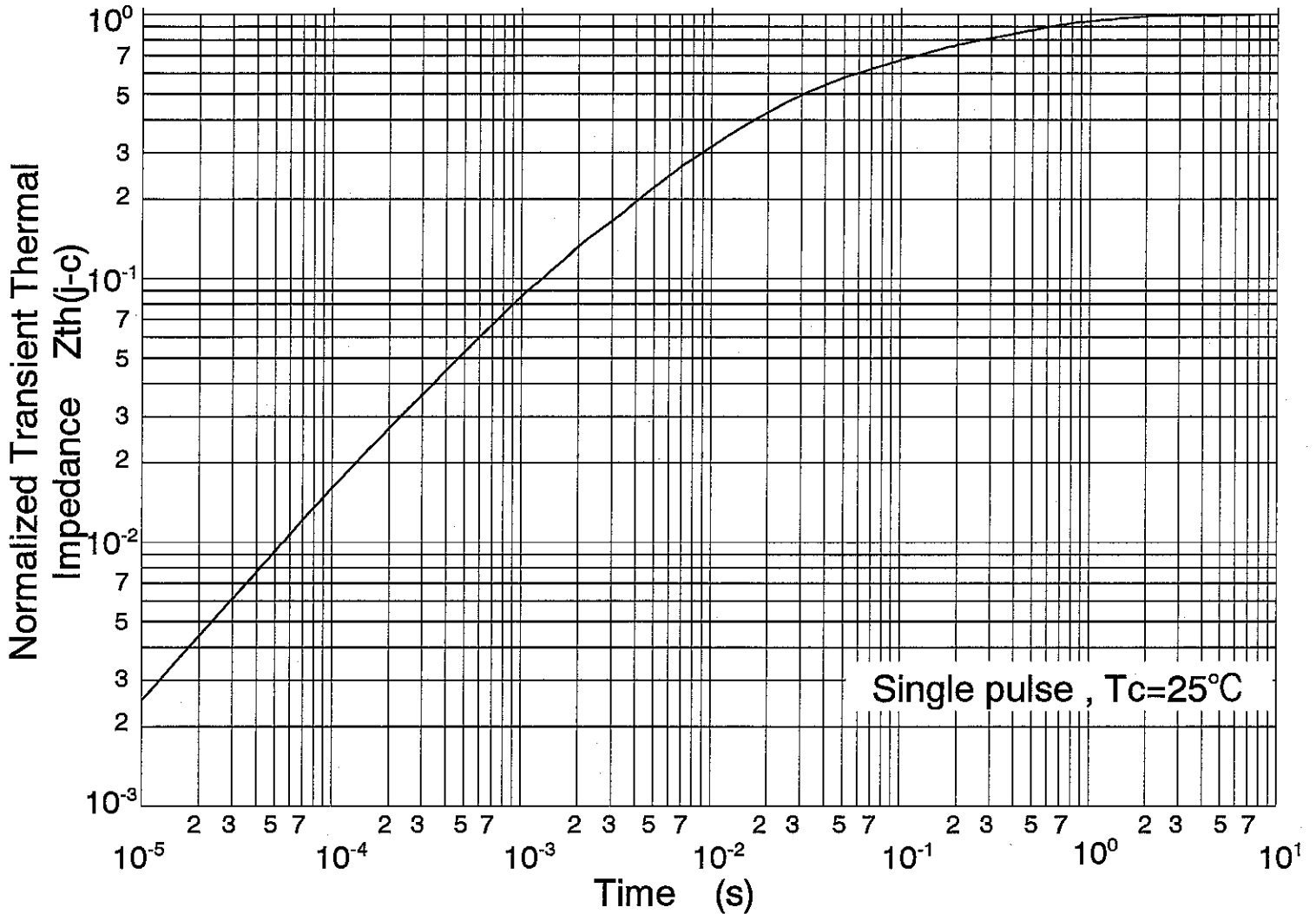
APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Reverse Recovery Characteristics of Free-Wheel Diode (typical) CM200DY-12NF



APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Transient Thermal Impedance Characteristics (IGBT part & FWD part) CM200DY-12NF



IGBT part :

Per unit base= $R_{th(j-c)}=0.19^{\circ}\text{C}/\text{W}$

FWD part :

Per unit base= $R_{th(j-c)}=0.35^{\circ}\text{C}/\text{W}$

APPLICATION NOTE	Prepared by		Rev	
	Approved by			

Gate Charge Characteristics
 (typical)
CM200DY-12NF

