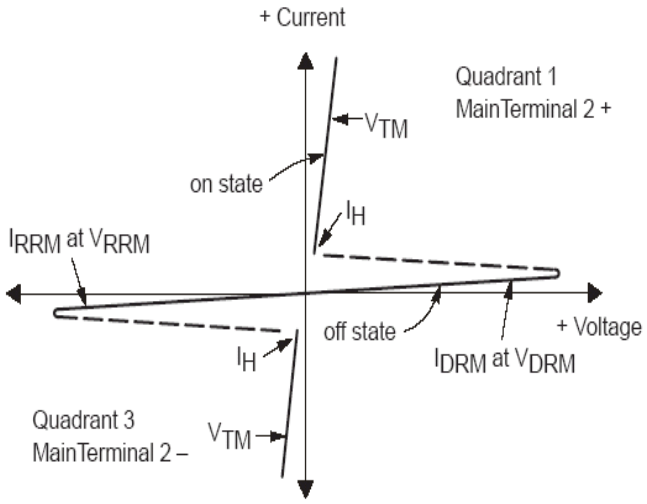
THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Thermal Resistance - Junction to Case - Junction to Ambient	R_{thJC} R_{thJA}	2.2 62.5	℃/W
Maximum Lead Temperature for Soldering Purposes 1/8" from Case for 10 Seconds	T_L	260	℃

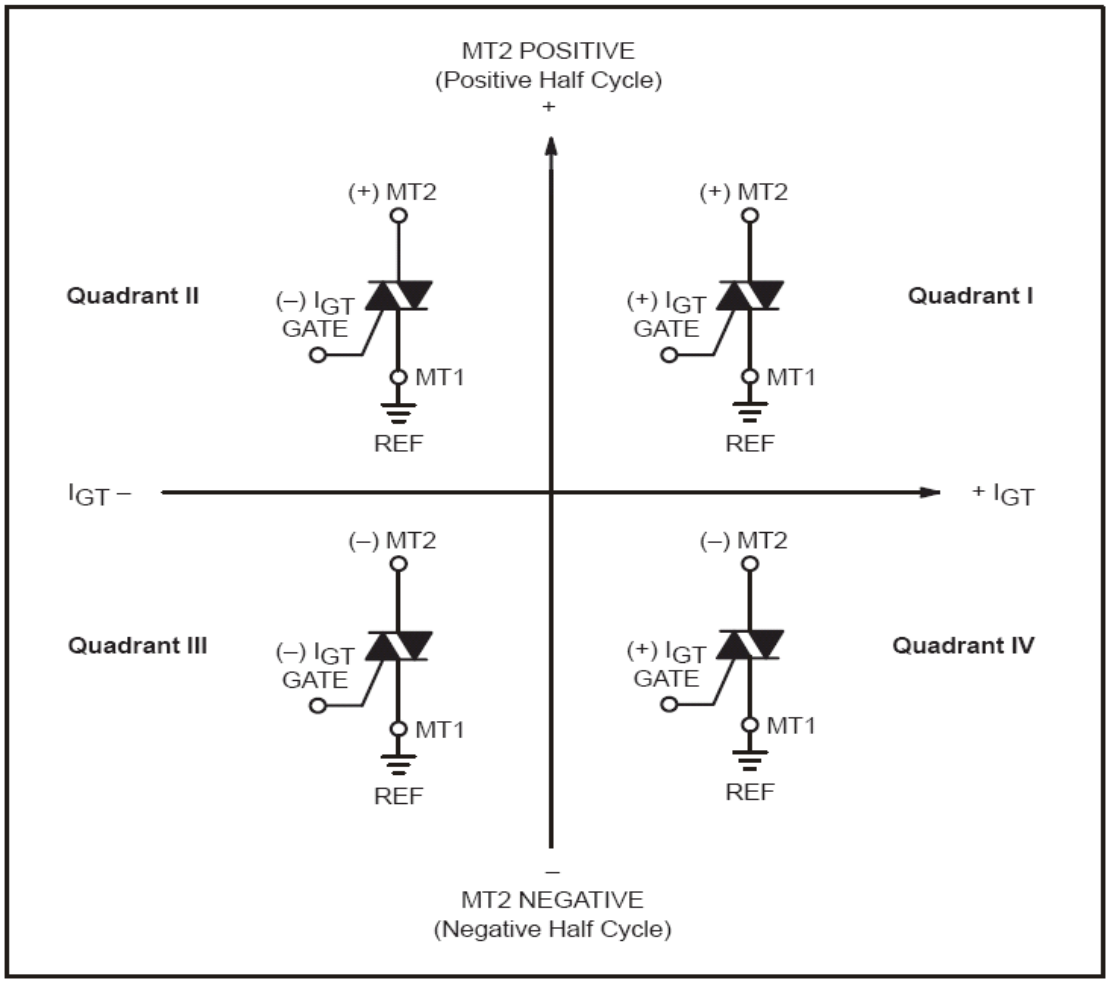
ELECTRICAL CHARACTERISTICS (T_j=25℃ unless otherwise noted, Electrical apply in both directions)

Characteristics		Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Peak Reptitive Forward or Reverse Blocking Current (V_D=Rated V_{DRM}, V_{RRM}; Gate Open)	T_J=25℃ T_J=125℃	I_{DRM} I_{RRM}	---- ----	---- ----	0.01 2.0	mA
ON CHARACTERISTICS						
Peak On-State Voltage (I_{TM}=± 17A Peak @Tp ≦ 2.0 ms, Duty Cycle ≦ 2%)		V_{TM}	----	----	1.85	Volts
Gate Trigger Current (V_D = 12Vdc; R_L = 100 Ohms)		I_{GT1} I_{GT2} I_{GT3}	5.0 5.0 5.0	13 13 13	35 35 35	mA
Gate Trigger Voltage (V_D = 12 Vdc; R_L =100 Ohms)		V_{GT1} V_{GT2} V_{GT3}	0.5 0.5 0.5	0.78 0.70 0.71	1.5 1.5 1.5	Volts
Holding Current (V_D = 12 V, Initiating Current = ± 150 mA, Gate Open)		I_H	----	20	40	mA
Latching Current (V_D = 24 V, I_G = 35 mA)		I_L	---- ---- ----	20 30 20	50 80 50	mA
DYNAMIC CHARACTERISTICS						
Critical Rate of Change of Commutation Current (V_D = Rated VDRM , I_{TM} = 4.4 A, Commutating dv/dt = 18 V/ms, Gate Unenergized,T_J = 125℃, f = 250 Hz,No Snubber)		di/dt(c)	6.5	----	----	A/ms
Critical Rate of Rise of Commutation Voltage (V_D = 67% VDRM, Exponential Waveform, Gate Open, T_J= 125℃)		dv/dt	400	----	----	V/us
Repetitive Critical Rate of Rise of On-State Current (IPK = 50 A; PW = 40 usec; diG/dt = 0.2 A/usec;f = 60 Hz)		di/dt	----	----	10	A/us

Symbol	Parameter
V_{DRM}	Peak Repetitive Forward Off State Voltage
I_{DRM}	Peak Forward Blocking Current
V_{RRM}	Peak Repetitive Reverse Off State Voltage
I_{RRM}	Peak Reverse Blocking Current
V_{TM}	Maximum On State Voltage
I_H	Holding Current



Quadrant Definitions



All polarities are referenced to MT1
Whith in -phase signal (using standard AC lines) quadrants I and III are used

Figure 1. Typical Gate Trigger Current)
versus Junction Temperature

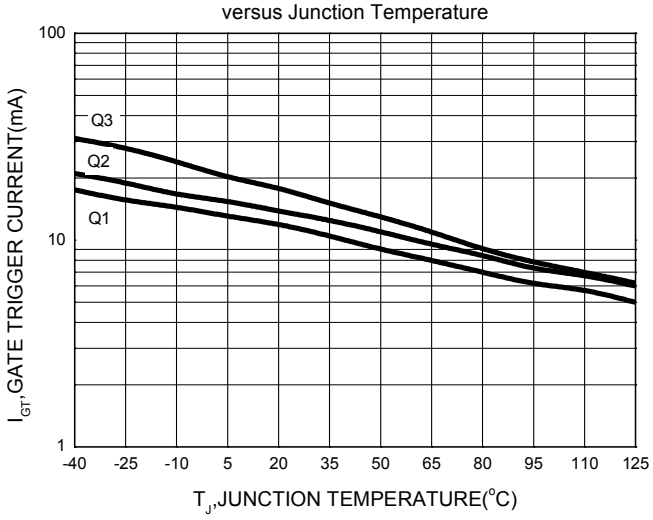


Figure 2. Typical Gate Trigger Voltage
versus Junction Temperature

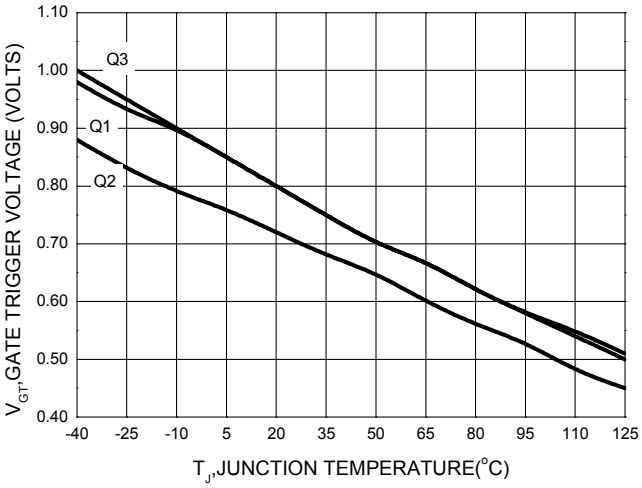


Figure 3. Typical Holding Current
versus Junction Temperature

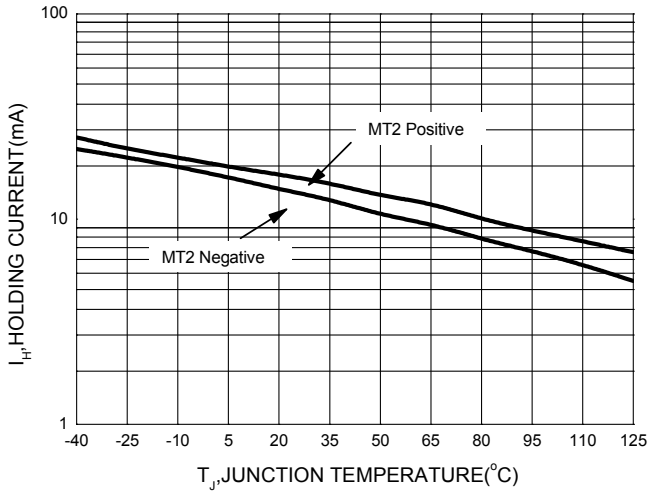


Figure 4. Typical Latching Current
versus Junction Temperature

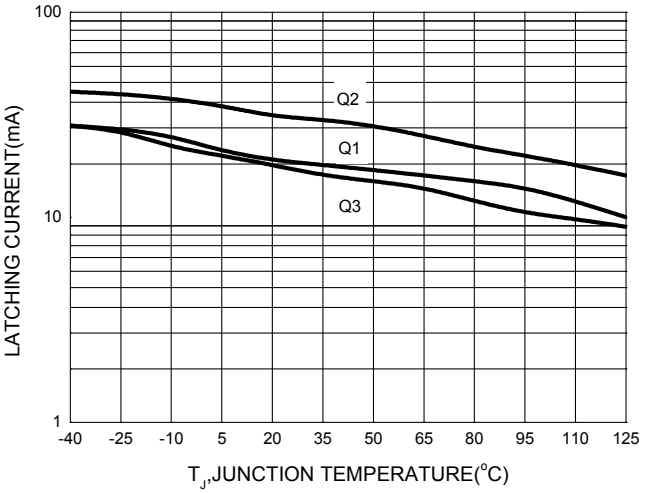


Figure 5. Typical RMS Current Derating

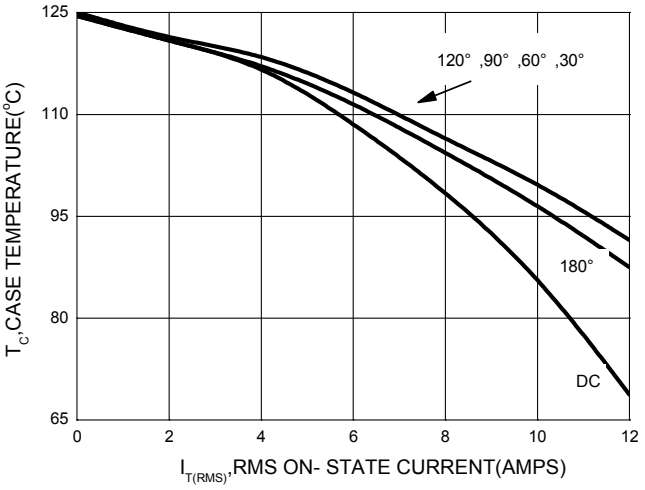


Figure 6. On-State Power Dissipation

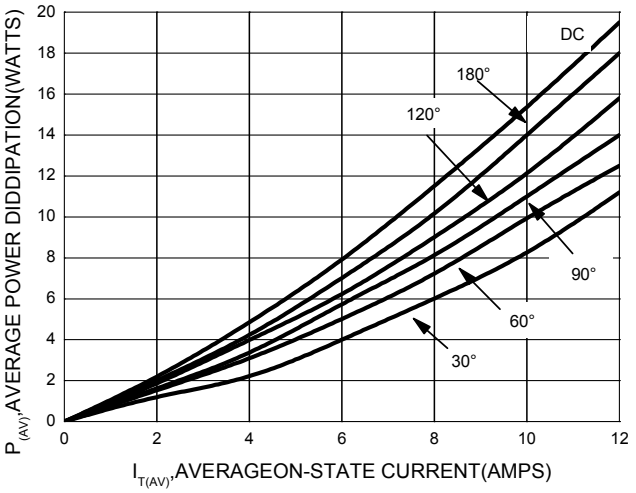


Figure 7. Typical On-State Characteristics

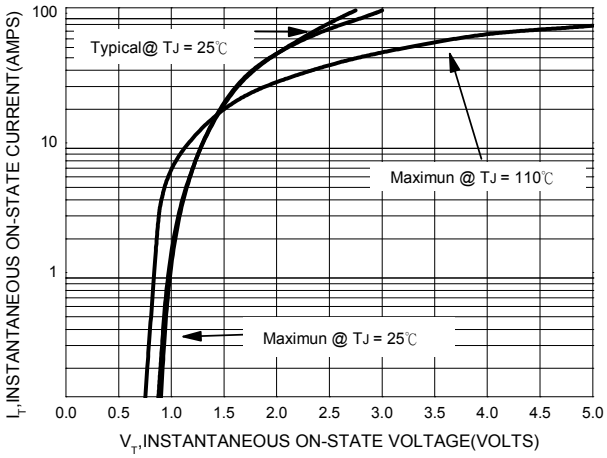
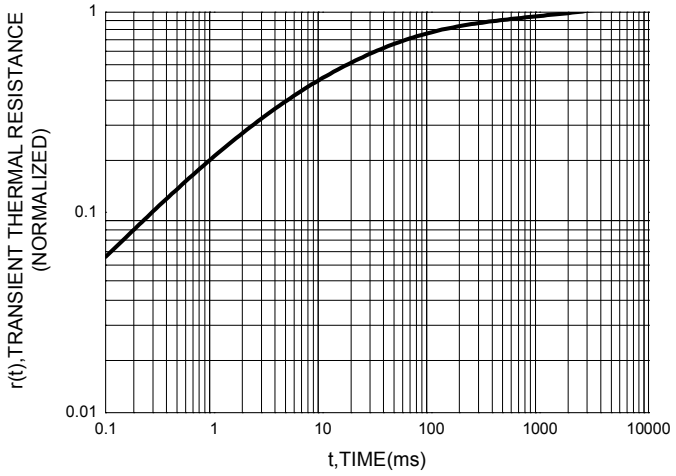


Figure 8. Typical Thermal Response



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