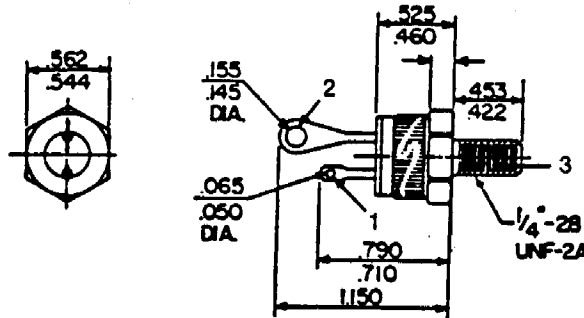


C35 SERIES



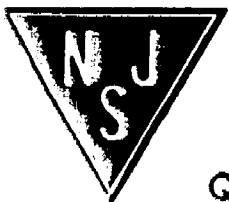
Rating	Symbol	Value	Unit
Peak Repetitive Forward and Reverse Blocking Voltage (1) ($T_C = -65$ to $+125^\circ\text{C}$)	V_{DRM} or V_{RRM}		Volts
C35U		25	
C35F		50	
C35A		100	
C35G		150	
C35B		200	
C35H		250	
C35C		300	
C35D		400	
C35E		500	
C35M		600	
C35S		700	
C35N		800	

MAXIMUM RATINGS — continued ($T_J = 125^\circ\text{C}$ unless otherwise noted.)

Rating	Symbol	Value	Unit
RMS On-State Current (All Conduction Angles)	$I_T(\text{RMS})$	35	Amps
Peak Non-Repetitive Surge Current (One cycle, 60 Hz)	I_{TSM}	225	Amps
Circuit Fusing ($t = 1$ to 8.3 ms)	I^2t	75	A^2s
Peak Gate Power	PGM	5	Watts
Average Gate Power	PG(AV)	0.5	Watt
Peak Reverse Gate Voltage	V_{GRM}	5	Volts
Operating Junction Temperature Range	T_J	-65 to $+125$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to $+150$	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.7	$^\circ\text{C}/\text{W}$



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

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ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
*Peak Forward Blocking Current ($V_D = \text{Rated } V_{DRM} @ T_C = +125^\circ\text{C}$)	C35U,F,A,G	—	—	13	mA
	C35B	—	—	12	
	C35H	—	—	11	
	C35C	—	—	10	
	C35D	—	—	8	
	C35E	—	—	6	
	C35M	—	—	5	
	C35S	—	—	4.5	
	C35N	—	—	4	
	($V_D = \text{Rated } V_{DRM} @ T_C = 125^\circ\text{C}$)	All Devices	—	—	
Peak Reverse Blocking Current ($V_R = \text{Rated } V_{RRM} @ T_C = +125^\circ\text{C}$)	C35U,F,A,G	—	—	6.5	mA
	C35B	—	—	6	
	C35H	—	—	5.5	
	C35C	—	—	5	
	C35D	—	—	4	
	C35E	—	—	3	
	C35M	—	—	2.5	
	C35S	—	—	2.25	
	C35N	—	—	2	
	($V_R = \text{Rated } V_{RRM} @ T_C = 125^\circ\text{C}$)	All Devices	—	—	
Peak On-State Voltage ($I_{TM} = 50.3 \text{ A peak, Pulse Width} \leq 1 \text{ ms, Duty Cycle} \leq 2\%$)	V_{TM}	—	—	2	Volts
Gate Trigger Current, Continuous dc ($V_D = 12 \text{ Vdc, } R_L = 50 \Omega$) ($V_D = 12 \text{ Vdc, } R_L = 50 \Omega, T_C = -65^\circ\text{C}$)	I_{GT}	—	6	40	mA
		—	—	80	
Gate Trigger Voltage, Continuous dc ($V_D = 12 \text{ Vdc, } R_L = 50 \Omega, T_C = -65^\circ\text{C to } +125^\circ\text{C}$) ($V_D = \text{Rated } V_{DRM}, R_L = 1000 \Omega, T_C = 125^\circ\text{C}$)	V_{GT}	—	—	3	Volts
		0.25	—	—	
Holding Current ($V_D = 24 \text{ Vdc, Gate Supply} = 10 \text{ V, } 20 \Omega,$ $45 \mu\text{s minimum pulse width, } I_T = 0.5 \text{ A}$)	I_H	—	—	100	mA
Critical Rate of Rise of Forward Blocking Voltage ($V_D = \text{Rated } V_{DRM}, T_C = +125^\circ\text{C}$)	dv/dt	10	—	—	$\text{V}/\mu\text{s}$
		20	—	—	
		25	—	—	