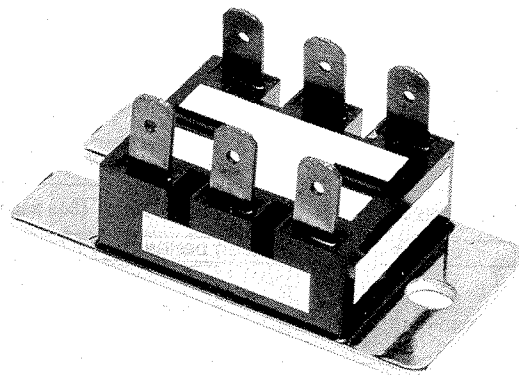
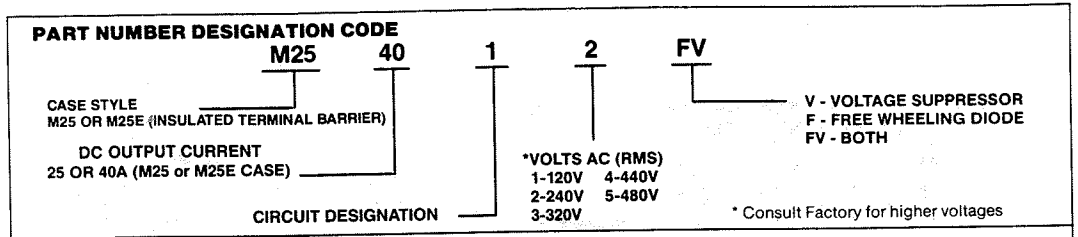


**M25 SERIES
25A/40A POWER
SCR/DIODE MODULES**



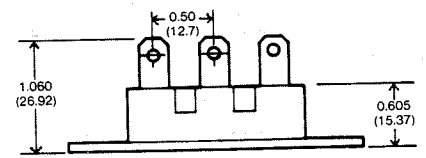
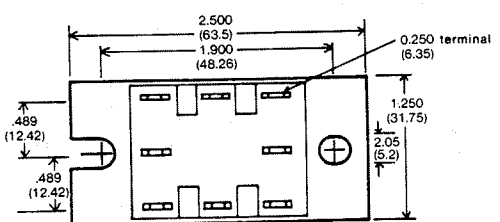
PARAMETER	SYM.	UNITS	SPECIFICATION LIMITS		CONDITIONS
DC Output Current (Max.)	I_o	A	25	40	$T_c = 85^\circ\text{C}$ (Circuits 1, 2, 3 & 6)
One-Cycle Surge Current (Peak)	I_{TSM}	A	300	400	60Hz Sine Wave, Non-Repetitive (Fig. 6)
I^2t for Fusing (Max.)	I^2t	A^2S	370	660	60Hz Sine Wave with Full Reapplied Voltage
Rate-of-Rise of On-State Current (Max.)	di/dt	$\text{A}/\mu\text{S}$	100		Max. V_{DRM} , Peak On-State Current = $9 \times I_o$ (Avg.)
Rate-of-Rise of Off-State Voltage (Max.)	dv/dt	$\text{V}/\mu\text{S}$	200*		Exponential Rise to 80% V_{DRM} , Gate Open Circuit, $T_c = 125^\circ\text{C}$
Repetitive Peak Off-State and Reverse Blocking Voltage (Max.)	V_{DRM} & V_{RRM}	V	300V for 120V _{RMS} (-1) 600V for 240V _{RMS} (-2) 800V for 320V _{RMS} (-3) 1000V for 440V _{RMS} (-4) *1200V for 480V _{RMS} (-5)		$T_J = 125^\circ\text{C}$
Isolation Voltage (Min.)	V_{ISOL}	V _{rms}	2500		Any Terminal-to-Base
Junction Operating Temp. Range	T_J	$^\circ\text{C}$	-40 to +125		
Storage Temperature Range	T_{STG}	$^\circ\text{C}$	-40 to +125		
Thermal Resistance (Case-to-Sink)	$R\theta_{c-s}$	$^\circ\text{C}/\text{W}$	0.1		With Thermal Grease
Thermal Resistance (Junction-to-Case)	$R\theta_{j-c}$	$^\circ\text{C}/\text{W}$	1.15	0.75	Per Device
Forward Gate Current (Peak)	I_{FGM}	A	3		See Fig. 7
Forward Gate Voltage (Peak)	V_{FGM}	V	10		
Reverse Gate Voltage (Peak)	V_{RGM}	V	5		
Gate Power (Peak)	P_{GM}	W	5		10 μS Duration
Gate Current Required to Fire all Devices (Max.)	I_{GT}	mA	50		$T_c = 25^\circ\text{C}$
Gate Voltage Required to Fire all Devices (Max.)	V_{GT}	V	2.5		
Latching Current (Max.)	I_L	mA	150		
Holding Current (Max.)	I_H	mA	75		
Leakage Current	I_{DRM} & I_{DM}	mA	10		$T_J = 125^\circ\text{C}$ at Peak Rated Voltage
Case Style				M25 or M25E	See following page for circuit configurations and outline dimensions

* Higher values are available. Consult Factory.

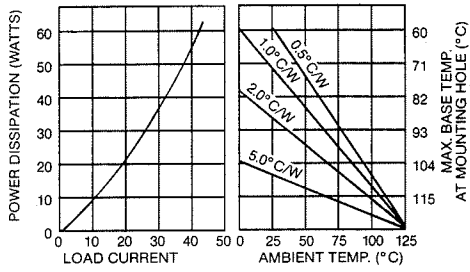


M25/M25E CIRCUIT CONFIGURATIONS (See page 25 for characteristic curves)

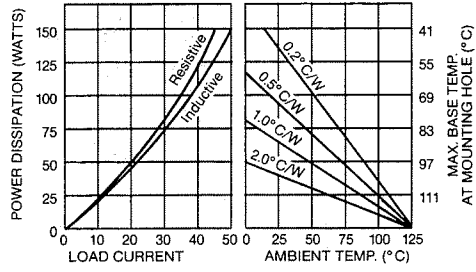
CIRCUIT TYPE	CIRCUIT DESIGNATION	CIRCUIT SCHEMATICS	CIRCUIT OPTIONS	TERMINAL LOCATIONS
HYBRID BRIDGE COMMON CATHODE SCRS	CIRCUIT 1		VOLTAGE SUPPRESSOR FREE WHEELING DIODE	
HYBRID BRIDGE COMMON ANODE SCRS	CIRCUIT 2		VOLTAGE SUPPRESSOR FREE WHEELING DIODE	
FULL SCR BRIDGE	CIRCUIT 3		VOLTAGE SUPPRESSOR	
AC SWITCH	CIRCUIT 4		VOLTAGE SUPPRESSOR	
SCR DOUBLER	CIRCUIT 5			
HYBRID BRIDGE DOUBLER	CIRCUIT 6		VOLTAGE SUPPRESSOR	
SCR CENTER TAP COMMON CATHODE	CIRCUIT 7			
HYBRID DOUBLER	CIRCUIT 8			



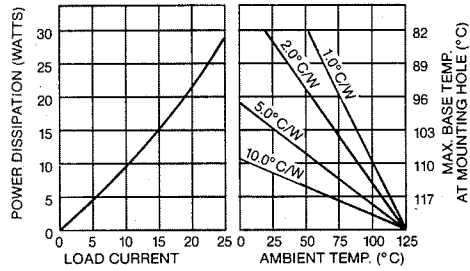
M25 CHARACTERISTIC CURVES



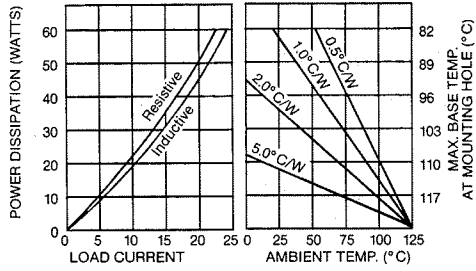
**FIGURE 1 — THERMAL DERATING CURVES, M2540
CIRCUITS 4,5,7 & 8**



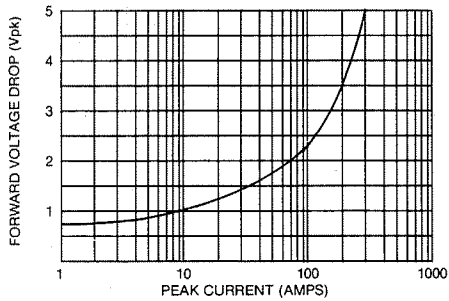
**FIGURE 2 — THERMAL DERATING CURVES, M2540
CIRCUITS 1,2,3 & 6**



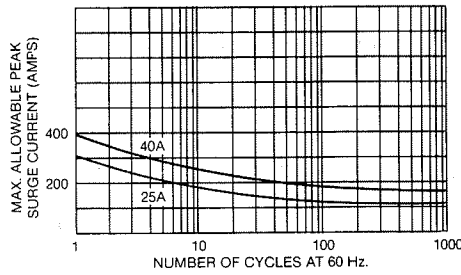
**FIGURE 3 — THERMAL DERATING CURVES, M2525
CIRCUITS 4,5,7 & 8**



**FIGURE 4 — THERMAL DERATING CURVES, M2525
CIRCUITS 1,2,3 & 6**



**FIGURE 5 — FORWARD VOLTAGE DROP VS.
PEAK CURRENT (@ 125°C)**



**FIGURE 6 — MAXIMUM NON-REPETITIVE SURGE
CURRENT VS. DURATION**