

thyristors

TRIACS

HERMETIC PACKAGES

TYPE	STUD/TO-3 FLANGE	SC240	SC245	SC250	SC260	SC265
	PRESS-FIT	SC241	SC246	SC251	SC261	SC266

ELECTRICAL SPECIFICATIONS

VOLTAGE CHARACTERISTICS

V_{DRM}	Repetitive Peak Off-State Voltage @ $T_C = 40^\circ \text{C to } +100^\circ \text{C}$					
	200V	SC240/1B	SC245/6B	SC250/1B	SC260/1B	SC265/6B
	400V	SC240/1D	SC245/6D	SC250/1D	SC260/1D	SC265/6D
	500V	SC240/1E	SC245/6E	SC250/1E	SC260/1E	SC265/6E
	600V	SC240/1M	SC245/6M	SC250/1M	SC260/1M	SC265/6M
V_{TM}	Max. On-State Voltage at Peak of RMS Current Rating (V)	1.83	1.65	1.65	1.58	1.38

CURRENT CHARACTERISTICS

$I_T(RMS)$	Max. RMS On-State Current (A)	6	10	15	25	40
$T_C(MAX)$	Max. Case Temperature at Rated RMS Current ($^\circ \text{C}$) for					
	Non-Isolated Stud/Press-Fit	82	80	86	80	81
	Isolated Stud/Non-Isolated TO-3 Flange	80	78	83	75	74
	Isolated TO-3 Flange	79	76	80	71	68
I_{TSM}	Max. Peak One Cycle Non-Repetitive Surge Current (A)					
	@ 50 Hz	74	90	90	230	275
	@ 60 Hz	80	100	100	250	300
I_{DRM}	Max. Leakage Current at $T_C = 25^\circ \text{C}$ (mA)	0.1	0.1	0.1	0.2	0.2
I_H	Max. DC Holding Current (mA)					
	@ $T_C = +25^\circ \text{C}$	50	50	50	75	75
	@ $T_C = -40^\circ \text{C}$	100	100	100	150	150
I_L	Max. DC Latching Current (mA)					
	@ $T_C = +25^\circ \text{C}$ MT2 + Gate +	100	100	100	100	100
	MT2 - Gate -	100	100	100	100	100
	MT2 + Gate -	200	200	200	200	200
	@ $T_C = -40^\circ \text{C}$ MT2 + Gate +	200	200	200	200	200
	MT2 - Gate -	200	200	200	200	200
	MT2 + Gate -	400	400	400	400	400

BLOCKING

dv/dt	Typical Static dv/dt at Rated V_{DRM} Gate Open Circuited (V/ μsec)	100	150	250	150	150
$dv/dt (c)$	Min. Commutating dv/dt at Rated V_{DRM} and $di/dt = (0.54) I_T(RMS) A/\mu\text{sec}$, Gate Open Circuited (V/ μsec)	4	4	4	5	5

TRIGGERING

I_{GT}	Max. Required DC Gate Current to Trigger, MT2 + Gate +, MT2 - Gate -, MT2 + Gate -.					
	@ $V_D = 12 \text{ Vdc}$ (mA)					
	@ $T_C = +25^\circ \text{C}$	50	50	50	50	80
	@ $T_C = -40^\circ \text{C}$	80	80	80	80	120
V_{GT}	Max. Required DC Gate Voltage to Trigger, MT2 + Gate +, MT2 - Gate -, MT2 + Gate -.					
	@ $V_D = 12 \text{ Vdc}$					
	@ $T_C = +25^\circ \text{C}$	2.5	2.5	2.5	2.5	2.5
	@ $T_C = -40^\circ \text{C}$	3.5	3.5	3.5	3.5	3.5

MECHANICAL SPECIFICATIONS

PACKAGE OUTLINE NUMBER	241(SC241) 242, 3, 4, 5 & 6 (SC240)	241(SC241) 242, 3, 4, 5 & 6 (SC240)	241(SC241) 242, 3, 4, 5 & 6 (SC240)	251(SC261) 252, 3, 4, 5 & 6 (SC260)	251(SC261) 252, 3, 4, 5 & 6 (SC260)
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PRESS-FIT



241

NON-ISOLATED STUD



242

ISOLATED STUD With Solder Ring Anode Terminal



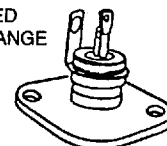
243

ISOLATED STUD With Press-On Anode Terminal



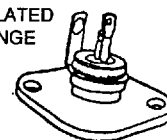
244

ISOLATED TO-3 FLANGE



245

NON-ISOLATED TO-3 FLANGE



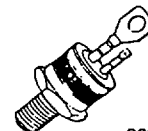
246

PRESS-FIT



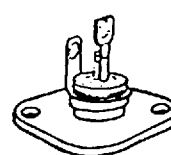
251

NON-ISOLATED STUD



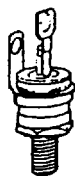
262

NON-ISOLATED TO-3 FLANGE



256

ISOLATED STUD With Solder Ring Anode Terminal



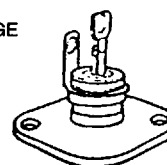
253

ISOLATED STUD With Press-On Anode Terminal



254

ISOLATED TO-3 FLANGE



255