

Thyristor Overvoltage Protectors

SMB, Thyristor Overvoltage Protectors



V_{DRM}
 $V_{(BO)}$ (Dv/dt=-250 V/ms, $R_{source}=300 \Omega$)
 I_{TSM} (20ms, 50 Hz, full sine)
 $I_{(BO), max}$
 $C_{0, max}$

90 V
 125 V
 55 V
 600 mA
 250 pf



The device is designed to limit over-voltages on the telephone and data lines. Over-voltages are normally caused by a.c. power system or lightning flash disturbances which are induced or conducted on to the telephone line. A single device provides 2-point protection and is typically used for the protection of ISDN power supply feeds. Two devices, one for the Ring output and the other for the Tip output, will provide protection for single supply analogue SLICs. A combination of three devices will give a low capacitance protector network for the 3-point protection of ISDN lines.

423214

Mfrs. List No.	Order Code	1+	25+	100+	250+	+
TISP5115H3BJ	SMD 109-8163	99.00	69.00	60.00	55.00	--

SMB, High Voltage Ringing SLIC Protector



This TISP® device series protects central office, access and customer premise equipment against over-voltages on the telecom line.



The TISP4xxxH3BJ is available in a wide range of voltages and has a high current capability, allowing minimal series resistance to be used. These protectors have been specified mindful of the following standards and recommendations: GR-1089-CORE, FCC Part 68, UL1950, EN 60950, IEC 60950, ITU-T K.20, K.21 and K.45. The TISP4350H3BJ meets the FCC Part 68 B" ringer voltage requirement and survives the Type A and B impulse tests.

422920

V_{DRM} V	V_{BO} V	$V_T @ I_T$ V	I_{DRM} A	$I_{(BO)}$ mA	I_H mA	I_T A	Mfrs. List No.
65	80	3	5	600	150	5	TISP4080M3BJ
180	240	3	5	600	150	5	TISP4240M3BJ
220	290	3	5	600	150	5	TISP4290M3BJ
275	350	3	5	600	150	5	TISP4350H3BJ
275	350	3	5	600	150	5	TISP4350T3BJ
275	350	3	5	600	150	5	TISP4350M3BJ

Mfrs. List No.	Order Code	1+	25+	100+	250+	+
TISP4350H3BJ	SMD 109-8164	98.00	68.00	59.00	54.00	--
TISP4350T3BJ	SMD 109-8165	105.00	74.00	64.00	58.00	--
TISP4350M3BJ	SMD 109-8166	100.00	70.00	61.00	56.00	--
TISP4290M3BJ	SMD 109-8167	100.00	70.00	61.00	56.00	--
TISP4240M3BJ	SMD 109-8168	100.00	70.00	61.00	56.00	--
TISP4080M3BJ	SMD 109-8169	100.00	70.00	61.00	56.00	--

Triacs

Standard and High Commutation

5mA to 20mA Gate Sensitivity, $V_{DRM} = 600V$



SOT-89



TO-252 (D-PAK)



I_T RMS A	I_{TSM} 1 cycle 50Hz Non-repetitive A	I_{GT} mA				Mfrs. List No.
		t_2+ g+	t_2+ g-	t_2- g-	t_2- g+	
SOT-89						
1	9.1	5	5	5	10	TMG1CQ60A*
D-PAK						
2	18	15	15	15	—	TMG2CQ60D
2	18	5	5	5	10	TMG2DQ60D*
3	27	15	15	15	—	TMG3CQ60D
3	27	5	5	5	10	TMG3DQ60D*
5	50	20	20	20	—	TMG5CQ60D

* = sensitive gate

423435

Mfrs. List No.	Code Order Code	1+	25+	100+	250+	+
TMG1CQ60A	SMD 109-6274	37.00	33.00	26.00	23.00	--
TMG2CQ60D	SMD 109-6275	69.00	61.00	49.00	44.00	--
TMG2DQ60D	SMD 109-6276	69.00	61.00	49.00	44.00	--
TMG3CQ60D	SMD 109-6277	84.00	73.00	58.00	52.00	--
TMG3DQ60D	SMD 109-6279	84.00	73.00	58.00	52.00	--
TMG5CQ60D	SMD 109-6281	88.00	77.00	62.00	56.00	--

TO-220 UltraFETs™

N-Channel

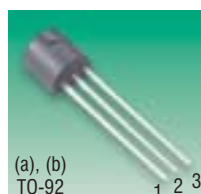


V_{DS} V	$R_{DS(on)}$ max. Ω	I_D cont. @ 25°C A	$V_{GS(th)}$ max. V	P_D @ 25°C W	Mfrs. List No.
55	0.016	66	3	150	HUF75333P3
55	0.009	75	3	150	HUF75343P3
55	0.012	75	4	200	HUF75339P3
55	0.008	75	4	285	HUFA75344P3

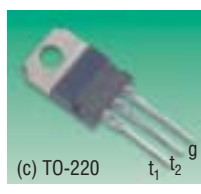
423338

Mfrs. List No.	Code Order Code	1+	25+	100+	250+	+
HUF75333P3	101-7709	108.00	88.00	73.00	57.00	--
HUF75343P3	101-7710	222.00	169.00	140.00	104.00	--
HUF75339P3	109-5124	95.00	71.00	59.00	44.00	--
HUFA75344P3	109-5125	178.00	134.00	112.00	82.00	--

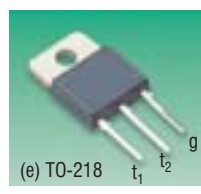
Isolated



(a), (b) TO-92



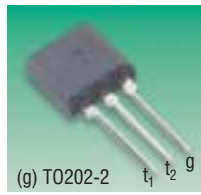
(c) TO-220



(e) TO-218



(f) TO-3 Flanged



(g) TO202-2



(h) SOT-82

Pin Out
 1 2 3
 (a) t_2 g t_1
 (b) t_1 t_2 g

Isolated devices offer simplified heatsinking without the need for additional insulating hardware, and reduced assembly costs.

V_{DRM} V	I_T rms A	I_{TSM} A	I_{GT} mA				V_{GT} V	V_{DRM} Package	Pack- age	Mfr. Mfr.	Mfrs. List No.
			t_2+ g+	t_2+ g-	t_2- g-	t_2- g+					
400	16	170	50	50	50	100	1.5	TO-220AB	c	ST	BTA16-400B.
400	10.0	100	50	50	50	100	1.5	TO-220AB	c	ST	BTA10-400B.
400	10.0	100	25	25	25	50	1.3	TO-220AB	c	ST	BTA10-400C
400	8.0	80	10	10	10	10	1.5	TO-220AB	c	ST	BTA08-400SRG
400	8.0	80	50	50	50	100	1.5	TO-220AB	c	ST	BTA08-400B.
400	8.0	80	25	25	25	50	1.3	TO-220AB	c	ST	BTA08-400C
400	6.0	60	5	5	5	5	1.5	TO-220AB	c	ST	BTA06-400T.
400	4.0	20	5	5	5	5	1.5	TO-202-3	g	ST	Z0405DF
400	1.5	12.0	8	8	8	8	2.5	TO-92	b	BNS	TICP206D
400	0.8	8.0	5	5	5	7	1.5	TO-92	a	ST	Z0107DA
600	40	300	50	50	50	100	1.5	TOP-3	e	ST	BTA41-600B
600	40	300	50	50	50	100	1.5	RD-91	f	ST	BTA40-600B
600	40	300	50	50	100	50	1.5	TOP-3	e	ST	BTA41-600BRG
600	30	260	50	50	50	100	1.5	RD-91	f	ST	BTA25-600B
600	25	250	50	50	50	100	1.5	TOP-3	e	ST	BTA26-600B
600	25	250	50	50	100	50	1.5	TOP-3	e	ST	BTA26-600BRG
600	16	170	50	50	50	100	1.5	TO-220AB	c	ST	BTA16-600B
600	16	170	10	10	10	10	1.3	TO-220AB	c	ST	BTA16-600SW
600	12.0	120	50	50	50	100	1.5	TO-220AB	c	ST	BTA12-600B
600	12.0	125	25	25	25	50	1.5	TO-220AB	c	ST	BTA12-600C
600	12.0	120	50	50	100	50	1.5	TO-220AB	c	ST	BTA12-600BRG
600	10.0	100	50	50	50	100	1.5	TO-220AB	c	ST	BTA10-600B
600	10.0	100	25	25	25	50	1.5	TO-220AB	c	ST	BTA10-600C
600	10.0	100	50	50	100	50	1.5	TO-220AB	c	ST	BTA10-600BRG
600	10.0	100	25	25	25	50	1.5	TO-220AB	c	ST	BTA10-600CRG
600	8.0	80	50	50	100	50	1.5	TO-220AB	c	ST	BTA08-600BRG
600	8.0	80	50	50	50	100	1.5	TO-220AB	c	ST	BTA08-600B
600	6.0	60	5	5	5	5	1.5	TO-220AB	c	ST	BTA06-600T
600	6.0	60	5	5	5	5	1.5	TO-220AB	c	ST	BTA06-600TRG
600	6.0	60	50	50	100	50	1.5	TO-220AB	c	ST	BTA06-600BRG
600	4.0	20	5	5	5	5	1.5	TO-202-3	g	ST	Z0405MF
600	4.0	30	10	10	10	10	1.5	SOT-82	f	ST	T410-600D
600	1.5	12.0	8	8	8	10	2.5	TO-92	b	BNS	TICP206M
600	0.8	8.0	5	5	5	7	1.5	TO-92	a	ST	Z0107MA
600	0.8	8.0	3	3	3	5	1.5	TO-92	a	ST	Z0103MA
600	0.8	10.0	5	5	5	7	1.5	TO-92	a	ST	Z00607MA
700	40	300	50	50	50	100	1.5	TOP-3	e	ST	BTA41-700B
700	40	300	50	50	50	100	1.5	RD-91	f	ST	BTA40-700B
700	40	300	50	50	100	50	1.5	TOP-3	e	ST	BTA41-700BRG
700	30	250	50	50	50	100	1.5	RD-91	f	ST	BTA25-700B
700	25	250	50	50	50	100	1.5	TOP-3	e	ST	BTA26-700B
700	25	250	50	50	100	50	1.5	TOP-3	e	ST	BTA26-700BRG
700	16	160	50	50	50	100	1.5	TO-220AB	c	ST	BTA16-700B
700	12.0	120	50	50	50	100	1.5	TO-220AB	c	ST	BTA12-700B
700	12.0	120	50	50	100	50	1.5	TO-220AB	c	ST	BTA12-700BRG
800	40	300	50	50	100	50	1.5	TOP-3	e	ST	BTA41-800B
800	40	300	50	50	100	50	1.5	TOP-3	e	ST	BTA41-800BRG
800	25	250	50	50	50	50	1.5	TOP-3	e	ST	BTA26-800B
800	16	160	50	50	100	50	1.5	TO-220AB	c	ST	BTA16-800BRG
800	16	160	50	50	100	50	1.5	TO-220AB	c	ST	BTA16-800B
800	8.0	84	25	25	25	25	1.5	TO-220AB	c	ST	BTA08-800C

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