

# Switching Transistors/MOV's

T-35-15



## SWITCHING TRANSISTORS

### TO-220AB

Ic cont. Amps. Max.	Vceo (sus) Volts Min.	Pc Watts	Device type NPN
3	400 800	60	2SC2929 2SC3549
4	250	60	2SD1073
-5	-80	30	2SB862**
5	100	40	2SD1128
	200	40	2SD930
	200	60	2SD2767
	200	60	2SD834
	200	60	2SD982
	350	60	2SD1072
	400	60	2SC2542
	400	40	2SC3723
6	300	60	2SD1071
	350	60	2SD835
	500	40	2SC3047
7	80	40	2SD916
	80	60	2SD833
	400	60	2SC4242
10	400	40	2SC4274

### TO-220F

Ic cont. Amps. Max.	Vceo (sus) Volts Min.	Pc Watts	Device type NPN
-5	-80	30	ET367**
3	800	40	2SC3866
4	250	40	ET386
5	80	30	2SD1740
	180	40	ET382
	400	30	ET389
	400	30	2SC3822
	400	40	2SC3821
	450	40	2SC3865 ET391
6	350	40	ET385
7	50	40	ET366
	80	25	2SD1726
	50	30	2SD1797
8	300	40	ET365
10	500	40	ET403

\*\* : PNP transistor



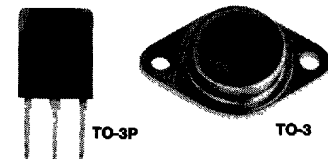
### TO-3P

Ic cont. Amps. Max.	Vceo (sus) Volts Min.	Pc Watts	Device type NPN
3	800	80	2SC3550
5	200	100	2SD921
	800	80	2SC3551
	1000*	80	ET383
6	600	100	2SC4206
	800	100	2SC4419
	700	80	2SC3505
7	400	100	2SC2656
	800	80	2SC3030
8	200	100	ET359
10	100	100	2SD923
	100	80	ET378
	200	100	2SC2769
	400	100	2SC2625
	400	80	2SC3318
	400	80	2SC3724
	400	80	2SC4275
	450	80	ET375
	500	80	ET206
	12	450	100
15	100	80	ET370
	400	100	2SC3320
	400	80	2SC3725
	400	80	2SC4276
	20	400	100
25	80	100	2SD1049

\* : Vceo (sus)

### TO-3

Ic cont. Amps. Max.	Vceo (sus) Volts Min.	Pc Watts	Device type NPN
5	200	120	2SD920
7	400	120	2SC2437
	700	80	2SC3033
10	100	120	2SD922
	400	120	2SC2245
	400	120	2SC3319
15	400	120	2SC2246
	400	120	2SC3321
20	400	120	2SC2623
	400	175	ETG36-040C
	400	175	ETG36-040D
25	80	150	2SD913
	120	150	2SD914
30	400	200	2SC2930



## METAL OXIDE VARISTORS

### GENERAL DESCRIPTION

FUJI's new line of ceramic surge absorbers are designed to protect low voltage electronic devices such as semiconductors from the effects of destructive voltage transients.

The Z-TRAP ENC series are widely used in applications where protection from lightning and switching surges is required, such as TV, broadcasting and communication equipment, and similar situations where there is danger of overvoltages or lightning damaging ICs, silicon diodes, thyristors and other devices.

FUJI Z-TRAP ENC series are gapless ceramic surge absorbers of a new type using a metal oxide.

They have excellent non-linear characteristics and their use gives a high degree of reliability to voltage sensitive circuit components. They have excellent clamping characteristics, and when subjected to high energy transient currents their impedance rapidly changes from a high standby value to a low conducting value which keeps voltages within safe limits.

Discharge transient peak current ratings are available up to a maximum of 4000A between 11-1000 Volts RMS AC and 14-1465 Volts DC. They are easily installed, take up little space, and are attractively priced.

### FEATURES

- Excellent clamping characteristics
- High discharge current capability - up to 4000 Amps
- Fast response time - under 50 nanoseconds

- Wide operating temperature range
- Eliminate follow-on current
- Improve product safety
- Remarkably symmetrical V-I characteristics
- Protect circuit insulation and improve system reliability
- Low installation cost
- UL recognized (UL1414)

### SELECTION GUIDE

Peak current (Amps)	Energy (Joules)	Max. steady state applied voltage						Packages	
		Volts AC r.m.s.			Volts DC				
		11	17	40	50	117.4	286	1000	
		14	17	56	65	108	380	600	1465
125 to 2000	0.3 to 40	DB type (Radial package)							
250 to 4000	1.7 to 400	DA type (Radial package)							
25 to 100	0.22 to 4	MA & MB type (Axial package)							

Type			
	DB type	DA type	MA & MB type
	L.V. Radial lead	H.V. Radial lead	MA: H.V. axial lead MB: L.V. axial lead
Operating ambient temperature	-40 to +85°C	-40 to +85°C	-40 to +85°C
Storage temperature	-40 to 125°C	-40 to 125°C	-40 to 100°C
Voltage temperature coefficient	-0.05%/°C	-0.05%/°C	-0.05%/°C
Insulation resistance (at 500V)	Over 1000MΩ	Over 1000MΩ	Over 1000MΩ
Hipot encapsulation (for 1 min.)	1500V AC	1500V AC	1000V AC

FUJI Semiconductors • Imported and Distributed by:

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