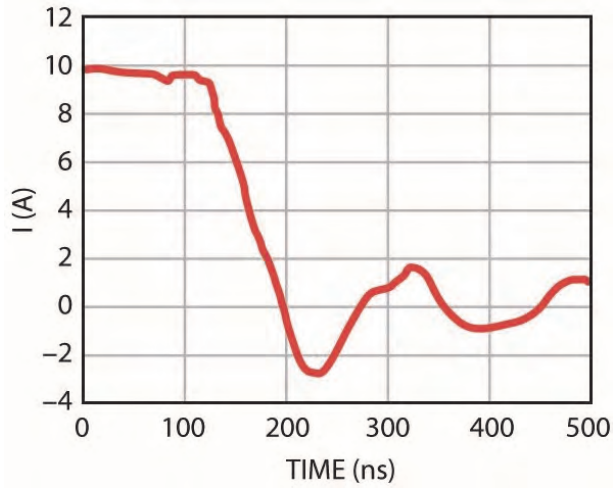
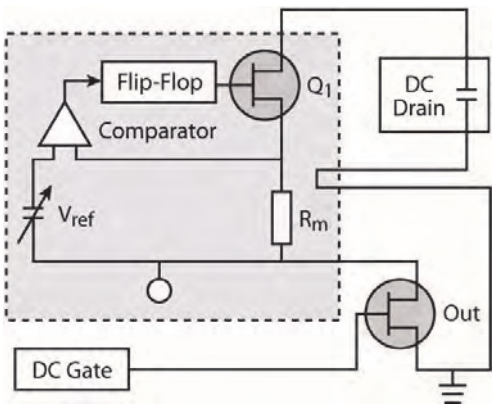
eFuse 2 -300-10

The security switch eFuse 2-300-10 acts as a fuse in the bias line, providing very fast switch-off times when the threshold current level is reached and so protecting the DUT and measurement equipment, such as the probe tips. The eFuse can be used to protect FET-type transistors as well as for bipolar, including HBT's.

To characterize transistors during development, on-wafer measurements (of sub-cells) are an indispensable tool. Typical DC voltages and currents that bias the DUT exceed 50V and 10A and big power supplies are required. When the DUT reaches breakdown, the current limits of the supplies are not held properly or fast enough and the DUT is destroyed due to the high amount of energy stored in the output capacitor of the power supply. This can also blast away part of the wafer, burn or weld down probe tips or destroy other expensive electronic equipment. Using the eFuse you can protect wafer probes, bias tees, connectors and regularly the transistors themselves very easily.

- Shut-off time < 300 ns
- Current Limit range 0…10 A
- Voltage up to 300 VDC
- Different connections possible
- Low voltage drop, 50mΩ series resistance.
- RS232 interface for remote control
- Full front panel control via handy turn-push knob





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Technical Data				
	Parameters	Conditions	Data	Unit
V_i	Allowable Input Voltage DC	0° C< T_a< 40° C	0 - 300	VDC
I_{limit}	Current limit adjustment	0° C< T_a< 40° C	0 - 10	ADC
	Limit setting accuracy	0° C< T_a< 40° C; I_a > 1A	5	%
t_{sw}	Turn-off-time	90% - 10% * I_{nom}	< 300	ns
I_{nom}	Nominal current	0° C< T_a< 40° C	10	ADC
ΔV_{io}	Voltage drop	0° C< T_a< 40° C; I_a = 10A	500	mVDC
R_i	Series/sense Resistance	0°C < T_a < 40°C	50	mΩ
Tk	Temperature Coefficient	0°C < T_a < 40°C	0.03	% / K
General Data				
	Parameters	Conditions	Data	Unit
	Short circuit Immunity	0°C < T_a < 40°C	continuous	VDC
	Input Voltage AC (mains)	0° C< T_a< 40° C	90-264	VAC
	Net Frequency (mains)		47...63	Hz
	Mains fuse		100	mA/T
	Ambient temperature	I_{load} = I_{nom}	0 - 40	°C
	Dimensions	L x B x H max	ca. 23 x 20 x 8	cm

The eFuse is programmable via RS 232 within its functional range.
It has current measurement capability, include remote read-out, but with limited accuracy (~5%).
Technical Data at Ta = 25°C unless otherwise specified.

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