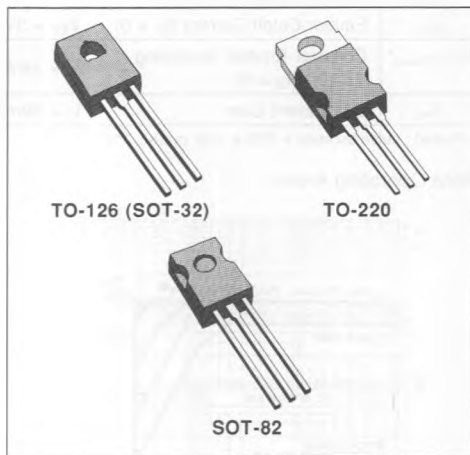


## HIGH VOLTAGE POWER TRANSISTORS

### DESCRIPTION

The MJE340, MJE340T, SGS340 are silicon epitaxial planar NPN transistors intended for use in medium power linear and switching applications. They are respectively mounted in TO-125, TO-220 and SOT-82 package.

The complementary PNP types are respectively the MJE350, MJE350T, SGS350.



### INTERNAL SCHEMATIC DIAGRAMS



### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$V_{CE0}$	Collector-emitter Voltage ( $I_B = 0$ )	300	V
$V_{EB0}$	Emitter-base Voltage ( $I_C = 0$ )	3	V
$I_C$	Collector Current	0.5	A
$P_{tot}$	Total Power Dissipation at $T_{case} \leq 25^\circ\text{C}$	20.8	W
$T_{stg}$	Storage Temperature	- 65 to 150	$^\circ\text{C}$
$T_j$	Junction Temperature	150	$^\circ\text{C}$

**THERMAL DATA**

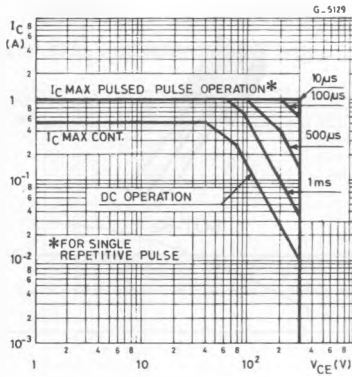
$R_{th(j-case)}$	Thermal Resistance Junction-case	Max	6.0	$^{\circ}C/W$
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**ELECTRICAL CHARACTERISTICS** ( $T_{case} = 25^{\circ}C$  unless otherwise specified)

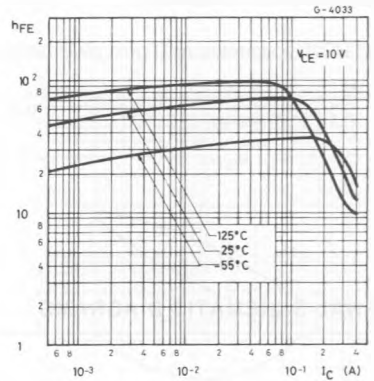
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CBO}$	Collector Cutoff Current ( $I_E = 0$ )	$V_{CB} = 300V$			100	$\mu A$
$I_{EBO}$	Emitter Cutoff Current ( $I_C = 0$ )	$V_{EB} = 3V$			100	$\mu A$
$V_{CE(sus)}^{\circ}$	Collector-Emitter Sustaining Voltage ( $I_B = 0$ )	$I_C = 1mA$	300			V
$h_{FE}$	DC Current Gain	$I_C = 50mA$ $V_{CE} = 10V$	30		240	

\* Pulsed : pulse duration = 300 $\mu s$ , duty cycle  $\leq 2\%$ .

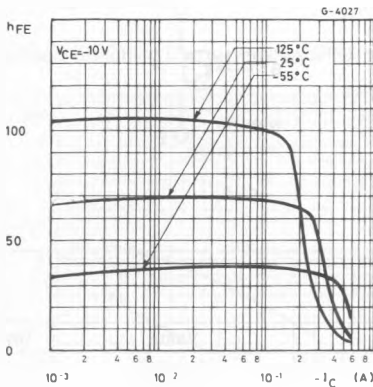
**Safe Operating Areas.**



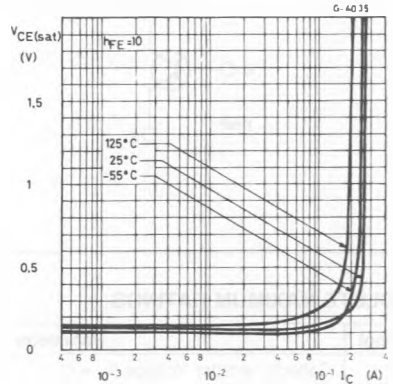
**DC Current Gain (NPN).**



**DC Current Gain (PNP).**



**Collector-emitter Saturation Voltage (NPN).**



Collector-emitter Saturation Voltage (PNP).

