



## Silicon NPN Power Transistors

## TIP562/563

### ELECTRICAL CHARACTERISTICS

$T_c=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	TIP562	100mA ; $I_B=0$			V
		TIP563				
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=10A; I_B=1.66A$			1.2	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=15A; I_B=5A$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=10A; I_B=1.66A$			1.4	V
$I_{CEO}$	Collector Cutoff Current	TIP562	$V_{CE}=270V; I_B=0$			mA
		TIP563				
$I_{CBO}$	Collector Cutoff Current	TIP562	$V_{CB}=300V; I_E=0$			mA
		TIP563				
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=8V; I_C=0$			5.0	mA
$h_{FE-1}$	DC Current Gain	$I_C=1A; V_{CE}=4V$	20			
$h_{FE-2}$	DC Current Gain	$I_C=10A; V_{CE}=4V$	8			

### Switching Times

$t_d$	Delay Time	$V_{CC}=180V; V_{BE}=-5.2V$ $I_C=10A; I_{B1}=-I_{B2}=2A$		0.05		$\mu s$
$t_r$	Rise Time			0.5		$\mu s$
$t_{stg}$	Storage Time			1.2		$\mu s$
$t_f$	Fall Time			0.3		$\mu s$