

Si NPN TRANSISTOR—D882

DESCRIPTION AND FEATURES

- *Collector-Emitter voltage: $BV_{CBO}=40V$
- *Collector current up to 3A
- *High h_{FE} linearity

PIN CONFIGURATIONS

PIN	SYMBOL
1	Emitter
2	Collector
3	Base

ABSOLUTE MAXIMUM RATINGS (Tamb=25°C)

PARAMETER	SYMBOL	VALUE	UNIT	
Collector-Base Voltage	BV_{CBO}	40	V	
Collector-Emitter Voltage	BV_{CEO}	30	V	
Emitter-Base Voltage	BV_{EBO}	5	V	
Collector Dissipation	Tcase=25°C	PCM	10	W
	Tamb=25°C		1	W
Collector Current	DC	I_{CM}	3	A
	Pulse	I_{cp}	7	A
Base Current	I_B	0.6	A	
Junction Temperature	T_j	+150	°C	
Storage Temperature	T_{stg}	-55~+150	°C	

ELECTRICAL CHARACTERISTICS (Tamb=25°C, all voltage referenced to GND Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V, I_E=0$			100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=3V, I_C=0$			100	nA
DC Current Gain	h_{FE1}	$V_{CE}=2V, I_C=20mA$	30	200		
	h_{FE2}	$V_{CE}=2V, I_C=1A$	100		400	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A, I_B=0.2A$		0.3	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=2A, I_B=0.2A$		1.0	2.0	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5V, I_C=0.1A$		80		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		45		pF

CLASSIFICATION OF h_{FE}

RANK	Q	P	E
RANGE	100~200	160~320	200~400

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