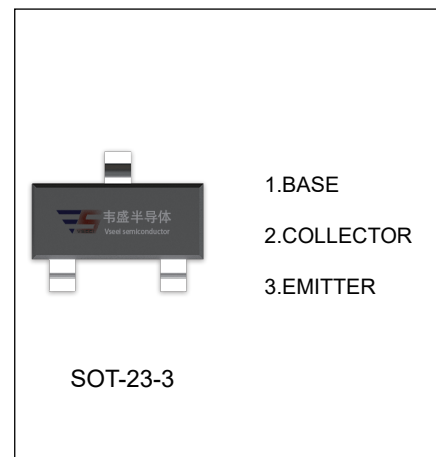


3DK2222A TRANSISTOR (NPN)

FEATURES

- Epitaxial planar die construction
- Complementary PNP Type available(MMBT2907A)



MAXIMUM RATINGS (T_a=25 °C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	75	V
V _{CEO}	Collector-Emitter Voltage	40	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	600	mA
P _C	Collector Power Dissipation	225	mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55to+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 10μA, I _E =0	75			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 10mA, I _B =0	40			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =70 V, I _E =0			0.01	μA
Collector cut-off current	I _{CEX}	V _{CE} =60V, V _{BE(off)} =3V			0.01	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 3V, I _C =0			0.01	μA
DC current gain	H _{FE(1)}	V _{CE} =10V, I _C = 150mA	100		300	
	H _{FE(2)}	V _{CE} =10V, I _C = 0.1mA	40			
	H _{FE(3)}	V _{CE} =10V, I _C = 500mA	42			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500 mA, I _B = 50mA I _C =150 mA, I _B =15mA			0.6 0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =500 mA, I _B = 50mA			1.2	V
Transition frequency	f _T	V _{CE} =20V, I _C = 20mA f=100MHz	300			MHz
Delay time	t _d	V _{CC} =30V, V _{BE(off)} =-0.5V I _C =150mA, I _{B1} = 15mA			10	ns
Rise time	t _r				25	ns
Storage time	t _S	V _{CC} =30V, I _C =150mA I _{B1} =-I _{B2} =15mA			225	ns
Fall time	t _f				60	ns